Teachers Name: Miss. N. S. Atugade

Subject : Physics

Class

: B.Sc Part-I (Sem - I)

Paper No: I

Paper Title : Mechanics

|                             | 40 40 W                  |                             | Topic /Unit                                                                   | Sub-units Planned                                                   |
|-----------------------------|--------------------------|-----------------------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Month: Jun                  | e                        |                             |                                                                               |                                                                     |
| Teaching Da                 | ıys                      |                             |                                                                               |                                                                     |
| Periods Allo                | tted                     |                             |                                                                               |                                                                     |
| Periods Ava                 | ilable                   |                             |                                                                               |                                                                     |
| Teaching                    | Practicals/<br>Tutorials | Tests                       |                                                                               |                                                                     |
| Month: July                 | V                        |                             |                                                                               | Newton's law of                                                     |
| Teaching Da                 |                          | 14                          | 1. Gravitation.                                                               | gravitation, Motion of                                              |
| Periods Allo                | 2                        | 13                          |                                                                               | particle in central force                                           |
| Periods Ava                 | ilable                   |                             |                                                                               | field, Kepler's law, satellite                                      |
|                             |                          |                             |                                                                               | in circular orbit, applications of satellite. Geosyncronous orbits. |
| Teaching                    | Practicals/<br>Tutorials | Tests                       | 1) To measure diameter of object by using a) Vernier calipers b) screw gauge. |                                                                     |
|                             | 3                        |                             | 2)M.I. of flywheel 3) Searl's method                                          |                                                                     |
| Months And                  |                          |                             |                                                                               |                                                                     |
| Month: Aug                  |                          | 12                          | 1. Gravitation                                                                | 1. Weightlessness, basic                                            |
| Teaching Da<br>Periods Allo |                          | 2 0                         | 2. Vectors                                                                    | idea of GPS, problems.  2.Addition and substraction                 |
| Periods Avai                |                          | 10                          | 2. Vectors                                                                    | of vectors, vectors product,                                        |
| Teaching                    | Practicals/<br>Tutorials | Tests                       | 4)Y.M of wooden bar                                                           | scaler product, cross<br>products                                   |
|                             | 2                        |                             | 5)M.I of Disc                                                                 |                                                                     |
| Morth C                     | 2                        |                             | 2 Vesters                                                                     |                                                                     |
| Month: September            |                          | 2. Vectors 3.Laws of motion | Derivetivs of a vector with                                                   |                                                                     |
| Teaching Days               |                          | 14                          | - S.Laws Of MOUOII                                                            | respect to parameters. Problems.                                    |
| Periods Allotted 12         |                          | _                           | Inertial and non inertial                                                     |                                                                     |
| Periods Avai                | liable                   |                             | _                                                                             | frame of reference.                                                 |
| Teaching                    | Practicals/<br>Tutorials | Tests                       |                                                                               | name of reference.                                                  |

|                |                          |                   | 6) half deflection by likage method                                 |                          |
|----------------|--------------------------|-------------------|---------------------------------------------------------------------|--------------------------|
|                |                          |                   | 7)Frequency of A.C mains by sonometer                               |                          |
|                | 2                        |                   |                                                                     |                          |
| Month: October |                          | 3. Laws of motion | Newton's 1st law of                                                 |                          |
| Teaching Da    | ıys                      | 13                |                                                                     | motion, newton's 2nd law |
| Periods Allo   | tted                     | 12                |                                                                     | of motion, newton's 3rd  |
| Periods Ava    | ilable                   | *                 |                                                                     | law of motion .solved    |
| Teaching       | Practicals/<br>Tutorials | Tests             | <ul><li>8) Spring constant</li><li>9) Modulus of rigidity</li></ul> | problems.                |
|                | 2                        |                   |                                                                     |                          |

Sign of the Head

IQAC CO-ORDINATOR Y. C. COLLEGE, ISLAMPUR Sign of the Principal

URUN (SLAND UN, IDSI Sang

Teachers Name: Mrs. P. A. Shaha

Subject : Chemistry

Class

: B. Sc - I (Sem I)

Paper No: I & II

Paper Title: Inorganic Chemistry

**Organic Chemistry** 

|                  |                          |              | Topic /Unit                 | Sub-units Planned                                                                                               |
|------------------|--------------------------|--------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------|
| Month: June      | <b>.</b>                 |              |                             |                                                                                                                 |
| Teaching Day     | ys                       |              |                             |                                                                                                                 |
| Periods Allot    | ted                      |              |                             |                                                                                                                 |
| Periods Avail    | lable                    |              |                             |                                                                                                                 |
| Teaching         | Practicals/<br>Tutorials | Tests        |                             |                                                                                                                 |
| Month: July      |                          |              | 2. Stereochemistry          | Types of stereoisomerism,                                                                                       |
| Teaching Day     | ys                       | 11           |                             | Optical Isomerism -                                                                                             |
| Periods Allot    |                          | 12           |                             | Concept of Chirality,                                                                                           |
| Periods Avai     | lable                    |              |                             | Elements of Symmetry,<br>Optical Isomerism in                                                                   |
| Teaching         | Practicals/<br>Tutorials | Tests        |                             | Optical Isomerism in tartaric acid, 2,3-dihydroxybutanoic acid.                                                 |
|                  |                          | 1            |                             |                                                                                                                 |
| Month: Aug       | ust                      |              | 2. Stereochemistry          | Enantiomerism, Distereomerism, meso                                                                             |
| Teaching Da      | ys                       |              |                             |                                                                                                                 |
| Periods Allotted |                          |              | compounds, Geometrical      |                                                                                                                 |
| Periods Avai     | lable                    | <del>1</del> |                             | Isomerism in C=C, C=N, alicyclic compounds,                                                                     |
| Teaching         | Practicals/<br>Tutorials | Tests        |                             | Nomenclature Stereoisomers - D & L, R & S, E & Z, Erythro&Threo                                                 |
|                  |                          | 1            |                             |                                                                                                                 |
| Month: Sep       | tember                   |              | 4. Cycloalkanes,            | Cycloalkanes, cycloalkenes                                                                                      |
| Teaching Da      |                          | 11           | Cycloalkenes&Alkadienes     | alkadienes - Methods of                                                                                         |
| Periods Allo     |                          | 10           | = 1450                      | formation, Chemical                                                                                             |
| Periods Avai     | lable                    |              |                             | Properties, Classification                                                                                      |
| Teaching         | Practicals/<br>Tutorials | Tests        | Physical Chemistry          | 1. Determination of Equivalent weight of Mg by Eudiometer. 2. Determination of heat of ionization of weak acid. |
|                  | 2                        | 1            |                             |                                                                                                                 |
| Month: Oct       | ober                     |              | 2. Chemical Bonding &       | Formation of ionic bonds &                                                                                      |
| Teaching Da      | ys                       | 12           | Molecular Structure - Ionic | characteristics, Born-Habe                                                                                      |
| Periods Allo     | <del>2</del>             | 12           | Bonding                     | Cycle for NaCl&                                                                                                 |

| Periods Avai | riods Available          |       |                     | applications, Fajan's Rule & applications                                                  |
|--------------|--------------------------|-------|---------------------|--------------------------------------------------------------------------------------------|
| Teaching     | Practicals/<br>Tutorials | Tests | Physical Chemistry  | 1. Determination of enthalpy of neutralization of hydrochloric acid with sodium hydroxide. |
|              |                          | 15    | Inorganic Chemistry | 1. To determine strength of given oxalic acid solution.                                    |
|              | 2                        | 1     |                     |                                                                                            |

Sign of the Head

IOAC CO-ORDINATOR V. C. COLLEGE, ISLAMPUR Sign of the Principal

Yashwantrao Charles Markandyalay URUN-ISLAMPUR, IDIAL SARG

2019-20

Teachers Name: Jadhav Megharani Chandrakant

Subject : Mathematics

Class

: B. & Part I

Paper No · VIII

Paper Title : Algebra\_II

| aper No : N         | /III                     |                                              |                                               | Paper Title : Algebra-II                                     |
|---------------------|--------------------------|----------------------------------------------|-----------------------------------------------|--------------------------------------------------------------|
|                     |                          |                                              | Topic /Unit                                   |                                                              |
| Month: De           | cember                   |                                              | Unit - 1 Groups                               | Lagrange's theorem and                                       |
| Teaching D          | ays                      | 12                                           | CCPM-III:- Advanced                           | its Consequences 1. Euler's theorem                          |
| Periods Allotted    |                          | 11                                           | matrix operation                              | 2. Fermat's theorem.                                         |
| Periods Available   |                          | CCPM-III:- Advanced                          | Normal subgroups and                          |                                                              |
| Teaching            | Practicals/<br>Tutorials | Tests                                        | SCILAB programming using Function             | its Properties                                               |
| 12                  | 02                       |                                              |                                               |                                                              |
| Month: Jai          | nuary                    |                                              |                                               | Factor Group                                                 |
| Teaching D          | ays                      | 13                                           | CCPM-III:- Inter-                             | (Quotient Group)                                             |
| Periods Alle        | otted                    | 10                                           | polation                                      | <ul> <li>Homomorphism of<br/>Groups Isomorphism,</li> </ul>  |
| Periods Ava         | ailable                  | <u></u>                                      | CCPM-III:- Numerical                          | Automorphism and                                             |
| Teaching            | Practicals/<br>Tutorials | Tests                                        | integration                                   | Endomorphism of Groups and examples.                         |
| 13                  | 02                       |                                              |                                               |                                                              |
| Month: Fe           | bruary                   | - Incompany and and                          | Unit – 2 Normal subgroups CCPM-II:-           | Kernel of a Homomorphism     Results related to Isomorphism. |
| Teaching D          | ays                      | 12                                           |                                               |                                                              |
| Periods All         | otted                    | 11                                           |                                               |                                                              |
| Periods Av          | ailable                  | 112                                          | Homomorphism &                                |                                                              |
| Teaching            | Practicals/<br>Tutorials | Tests                                        | CCPM-III:- Numerical methods for solution ODE |                                                              |
| 12                  | 03                       |                                              |                                               |                                                              |
| Month: M            | arch                     |                                              | CCPM-II:- Permutaion                          | Permutation Group                                            |
| Teaching Days       |                          | 07                                           | Group                                         | <ol> <li>Definition, Examples.</li> <li>Theorems.</li> </ol> |
| Periods Allotted 11 |                          | 11                                           | S:- Numerical methods                         |                                                              |
| Periods Available   |                          | for solution of a system of linear equations | 3. Rings, Subrings                            |                                                              |
| Teaching            | Practicals/<br>Tutorials | Tests                                        | of finear equations                           |                                                              |
| 07                  | 02                       |                                              |                                               |                                                              |

Sign of the Head IQAC CO-ORDINATOR

Sign of the Principal

Teachers Name: Mrs. Neha N. Sali

Subject : Mathematics

Class

: B. Sc. Part I(Sem-I)

Paper No:DSC-5A

Paper Title: DifferentialCalculus

|                   |                          |                  | Topic /Unit                         | Sub-units Planned                                                      |
|-------------------|--------------------------|------------------|-------------------------------------|------------------------------------------------------------------------|
| Month: July       |                          |                  | Unit1:Hyperboli                     | De- Moivre's Theorem.                                                  |
| Teaching Days     |                          | 11               | c Functions                         | Applictions of the                                                     |
| Periods Allotted  |                          | 11               |                                     | abovetheorem                                                           |
| Periods Available |                          | 1 2000           |                                     | Hyperbolicfunctions                                                    |
| Teaching          | Practicals/<br>Tutorials | Tests            |                                     |                                                                        |
| 11                |                          |                  |                                     |                                                                        |
| Month: Aug        | ust                      |                  | Unit1:Hyperboli                     | Inverse Hyperbolic                                                     |
| Teaching Da       | ys                       | 10               | e Functions                         | functions                                                              |
| Periods Allot     | tted                     | 10               | CCPM I-                             | Relations between                                                      |
| Periods Avai      | lable                    |                  | Application of  De Moivre's         | hyperbolic and circular functions                                      |
| Teaching          | Practicals/<br>Tutorials | Tests            | Theorem                             |                                                                        |
| 10                | 01                       |                  |                                     |                                                                        |
| Month: Sep        | tember                   |                  | Unit2:Higher order Derivatives      | Successive Differentiation. Leibinitz'sTheorem PartialDifferentiation. |
| Teaching Da       | ys                       | 11               |                                     |                                                                        |
| Periods Allo      | tted                     | 11               | CCPM I-                             |                                                                        |
| Periods Avai      | ilable                   |                  | Examples on                         |                                                                        |
| Teaching          | Practicals/<br>Tutorials | Tests            | Leibnitz's Theorem                  |                                                                        |
| 11                | 01                       |                  |                                     |                                                                        |
| Month: Oct        | ober                     |                  | Unit2:The Real numbers              | 2.4. Euler's Theorem<br>Maxima and Minima for                          |
| Teaching Da       | ıys                      | 11               | CCPM I- Examples on                 |                                                                        |
| Periods Allotted  |                          | 10               | Euler's Theorem                     | function of two variables                                              |
| Periods Available |                          | CCPM I- Maxima & | Lagrange's Method of                |                                                                        |
| Teaching          | Practicals/<br>Tutorials | Tests            | minima of function of two variables | undeterminedmultipliers.                                               |
| 11                | 02                       |                  |                                     |                                                                        |

Sign of the Teacher

Sign of the Head

Sign of the Principal

Principal

Yashwantrao Chavan Mahavidyalaye URUN-ISLAMPUR, (Dist. Sang

IQAC CO-ORDINATOR

Teachers Name: Miss.P.V.Patil.

Subject : Chemistry

Class

: B.Sc Part-I (Sem - I)

Paper No: I

Paper Title : Inorganic Chemistry

|                   |                          |       | Topic /Unit                                                        | Sub-units Planned                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|-------------------|--------------------------|-------|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Month: Jui        | ne                       |       |                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| Teaching D        |                          |       |                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| Periods Allo      | Wilder Control           |       |                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| Periods Ava       | iilable                  |       |                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| Teaching          | Practicals/<br>Tutorials | Tests |                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| Month: Jul        | y                        |       |                                                                    | Bohr's theory of Hydrogen                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |
| Teaching Da       | ays                      | 16    | 1. Atomic Structure &                                              | atom, Wave particle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| Periods Allo      | otted                    | 15    | Periodicity of Elements                                            | duality, Heisenberg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| Periods Ava       | ilable                   |       | _                                                                  | Uncertainty Principle,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| Teaching          | Practicals/<br>Tutorials | Tests |                                                                    | Quantum Numbers significance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
|                   |                          | 01    |                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| Month: Aug        | gust                     |       |                                                                    | Electrons filling rules,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |
| Teaching Da       |                          | 14    | 1. Atomic Structure &                                              | Stability of empty, half-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |
| Periods Allotted  |                          | 13    | Periodicity of Elements                                            | filled & completely filled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
| Periods Available |                          |       | orbitals, Periodicity of s-                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| Teaching          | Practicals/<br>Tutorials | Tests |                                                                    | block elements- Electronic configuration & Properties                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
|                   |                          | 1     |                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| Month: Sep        | tember                   |       | 3. Chemical Bonding &                                              | Concept of Hybridization,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |
| Teaching Da       | iys                      | 16    | Molecular Structure- VBT                                           | Conditions of hybridization,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| Periods Allo      | tted                     | 13    |                                                                    | Types of Hybridization                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| Periods Ava       | ilable                   |       |                                                                    | And the control of th |  |
| Teaching          | Practicals/<br>Tutorials | Tests | 4. Chemical Bonding & Molecular Structure- MOT  Physical Chemistry | LCAO method, Types of MO's, Difference between BMO's & ABMO's  1. Determination of Equivalent weight of Mg by Eudiometer.  2. Determination of heat of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
|                   | 2                        | 2     |                                                                    | ionization of weak acid.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |

| Month: Oct    | tober                    |       |                          | Conditions for overlap,                                                                                                                            |
|---------------|--------------------------|-------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Teaching Days |                          | 14    | 4. Chemical Bonding &    | - x :                                                                                                                                              |
| Periods Allo  | tted                     | 12    | Molecular Structure- MOT | level sequence for MO                                                                                                                              |
| Periods Ava   | ilable                   |       |                          | n=1,n=2, MO diagrams for                                                                                                                           |
| Teaching      | Practicals/<br>Tutorials | Tests | Physical Chemistry       | homo & hetero-nuclear diatomic molecules with examples  1. Determination of enthalpy of neutralization of hydrochloric acid with sodium hydroxide. |
|               |                          |       | Inorganic chemistry      | 1. To determine strength of given oxalic acid solution.                                                                                            |
|               | 2                        | 1     |                          |                                                                                                                                                    |

Sign of the Head 7700

Sign of the Principal Principal

Yashwamata Ghawa Mahavidyalaya URUN 451, 186-127, (Clist. Sang

TOAC CO-ORDINATOR

Teachers Name: Vibhute M. V.

Subject : Botany

Class

: BSC. Part I (Sem I)

Paper No: I

Paper Title: BIODIVERSITY OF

#### MICROBES, ALGAE AND FUNGI

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 4-0   | Topic /Unit                                                         | Sub-units Planned                                                                             |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Month: June       | and the second s |       |                                                                     |                                                                                               |
| Teaching Day      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |                                                                     |                                                                                               |
| Periods Allott    | -CO-51                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |       |                                                                     | =                                                                                             |
| Periods Avail     | San Carlotte Control of the Control  |       |                                                                     |                                                                                               |
| Teaching          | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests |                                                                     |                                                                                               |
| Month: July       | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       | UNIT-1 VIRUSES                                                      | 1.1Discovery, General                                                                         |
| Teaching Day      | 'S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 06    |                                                                     | characters.                                                                                   |
| Periods Allott    | ed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 05    |                                                                     | 1.2structure of viruses 1.3Types                                                              |
| Periods Avail     | able                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |       |                                                                     | Of viruses 1.4Economic                                                                        |
| Teaching          | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests |                                                                     | Importance.                                                                                   |
| 05                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |                                                                     |                                                                                               |
| Month: Augu       | ıst                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |       | UNIT -2 BACTERIA                                                    | 2.1 Discovery, General                                                                        |
| Teaching Day      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 12    |                                                                     | Character.                                                                                    |
| Periods Allotted  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 11    |                                                                     | 2.2 Cell Structure, Types                                                                     |
| Periods Available |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       | 2.3 Mode of reproduction                                            |                                                                                               |
| Teaching          | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests |                                                                     | 2.4 Economic Importance                                                                       |
| 11                | 03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 01    | Study of Forms of bacteria<br>Study of Nostoc<br>Study of Spirogyra | Cocci, Spiral, bacillus  Identification, Classification                                       |
| Month: Septe      | ember                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -     | UNIT -3 ALGAE                                                       | 3.1 General Character and classification 3.2Economic Importance 3.3Morphology and Life Cycles |
| Teaching Day      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 10    |                                                                     |                                                                                               |
| Periods Allott    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 10    |                                                                     |                                                                                               |
| Periods Avail     | able                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1     |                                                                     |                                                                                               |
| Teaching          | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests |                                                                     | a.Cyanophyceae: Nostoc<br>b.Chlorophyceae: Spirogyra                                          |
| 10                | 03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |       | Study of Mucor<br>Study of Penicillium Study of<br>Riccia           | Identification, Classification,<br>General Characteristics                                    |
| Month: Octo       | ber                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |       | UNIT-4 FUNGI                                                        | 4.1General Characters.                                                                        |
| Teaching Days 11  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 11    |                                                                     | Classification                                                                                |
| Periods Allotted  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 11    |                                                                     | 4.2EconomicImportance.                                                                        |
| Periods Available |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       | 4.3Morphology and life cycles                                       |                                                                                               |
| Teaching          | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests |                                                                     | a. Zygomycotina: Mucor b<br>Ascomycotina: Penicillium                                         |
| 11                | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 01    |                                                                     |                                                                                               |
|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       | 1                                                                   | 1                                                                                             |

Sign of the Teacher

Sign of the Head

loe, Islampur

Yashwantrao Chavan Mahavidyalaya

URUN-ISLAMPUR, (Dist. Sang

Teachers Name: Miss. S. D. Kulkarni.

Subject : Chemistry

Class: B.Sc Part - 1 (Sem I)

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| Month: Ju                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ne                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |                                                                                         |
| Teaching Days                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |                                                                                         |
| Periods All                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | otted                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |                                                                                         |
| Periods Av                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ailable                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | •                                    |                                                                                         |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Practicals/<br>Tutorials | Tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                      |                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |                                                                                         |
| Month: Ju                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ly:                      | 1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1. Fundamentals of                   | Curved arrow notations                                                                  |
| Teaching Days                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | organic chemistry                    | cleavage of bonds organic molecular species electrophiles, and nucleophiles, electronic |
| Periods Allotted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                      |                                                                                         |
| Periods Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | displacements-inductive,             |                                                                                         |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Practicals/<br>Tutorials | Tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                      | electromeric effect                                                                     |
| Control of the Contro |                          | 11.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                      |                                                                                         |
| Month: Au                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | gust                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1. Fundamentals of organic chemistry | Resonance and<br>Hyperconjugation effect,<br>reactive<br>intermediates-Carbocati        |
| Teaching D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ays                      | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                      |                                                                                         |
| Periods Alle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | otted                    | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                      |                                                                                         |
| Periods Ava                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ilable                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      | on, Carbanion, Free radicals.                                                           |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Practicals/<br>Tutorials | Tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | _                                    |                                                                                         |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |                                                                                         |
| Month: September                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          | 3. Aromaticity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Characteristics of                   |                                                                                         |
| Teaching Days                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | *                                    | aromatic compounds meaning of terms                                                     |
| Periods Alle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | otted                    | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1 Dhyrical Chambatan                 | structure of benzene,                                                                   |
| Periods Ava                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | iilahle                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1. Physical Chemistry                | L.Determination of                                                                      |

| Teaching                       | Practicals/<br>Tutorials | Tests |                     | Equivalent weight of Mg by eudiometer.  2. Determination of heat of ionisation of weak acid. |
|--------------------------------|--------------------------|-------|---------------------|----------------------------------------------------------------------------------------------|
| 2                              | arrand .                 |       |                     |                                                                                              |
| Month: Oc                      | tober.                   |       | 3. Aromaticity      | Modern theory of                                                                             |
| Teaching Days Periods Allotted |                          | 4     |                     | aromaticity, Applications of Huckels rule,                                                   |
|                                |                          | 7     |                     | Mechanism of electrophilic substitution-Nitration, Sulphonation,                             |
| Periods Available              |                          | *     |                     |                                                                                              |
| Teaching                       | Practicals/<br>Tutorials | CS#S  |                     | Halogenation, Friedel crafts reactions.                                                      |
|                                |                          |       | Physical Chemistry  | 1. Determination Of Enthalpy of neutralisation of hydrochloric acid with sodium hydroxide.   |
|                                |                          |       | Inorganic Chemistry | 2. To determine Strength of given Oxallic acid Solution                                      |
| 02                             | 02                       |       |                     |                                                                                              |

Sign of the Head

COLORDINATOR JULEUS, ISLAMPUR

Sign of the Principal

Yashwantran Chaven Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang

Teachers Name: Miss. A.P.Dhotre

Subject : physics

Class

: B.Sc Part - 1 (Sem II)

Paper No: IV

Paper Title: Electricity and magnetism II

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| i tomaha Nov       | 'ember                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | S0                   |                                 |                                                      |
| Teaching Days 2    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2                    |                                 |                                                      |
| Forlods Afforted   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |                                 |                                                      |
| Loriods Ava        | ilable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      |                                 |                                                      |
| Feathing           | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests                |                                 |                                                      |
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |                                 |                                                      |
| Floridiz Dec       | ember                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4                    |                                 | Complex numbers and heir                             |
| ewhire Do          | he.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Ş                    | Unit 3                          | applications in solving a.c                          |
| Pariods Allo       | tteti                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 7                    | Topic 1 A.C circiuts            | series LCR circuits                                  |
| Furiods Ava        | inble                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      | 10. Theynins theorni            | S .                                                  |
| Leaching           | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests                | 11. Use of multimeter           | 8                                                    |
| 4                  | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                      |                                 |                                                      |
| Mostin: Jun        | nary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                      | Topic 1 A.C.circiuts            | Complex impedence Reactance Admittance and susptance |
| Teaching Da        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 4                    | 12.LCR(Series) 13.LCR(Parallel) |                                                      |
| Egiods Aile        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 7                    |                                 |                                                      |
| Franki fiya        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |                                 |                                                      |
| Leacendy           | Practicals/                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Tests                |                                 |                                                      |
| <u>.</u>           | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                      |                                 |                                                      |
| Manda Reb          | FETRESS FTY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |                                 | Reasoance in LCR series                              |
| Tasching De        | iys                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3                    | Topic 1 A.C.circiuts            | circuit, Sharpness of reasoance (qualiditative       |
| Pariotic Alfo      | ici                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 7                    | 14. Keters pendulum             |                                                      |
| Carings dwa        | ilable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      | 15. Bar pendulum                | treatment only).                                     |
| feaching           | Practicals/<br>Lutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests                |                                 | Q-factor(definitation only)                          |
| A                  | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                      |                                 |                                                      |
| Month: Mn          | The state of the s |                      | <del> </del>                    | A.C. Bridge-Owen's                                   |
| Traching Days 2    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Topic 1 A.C.circiuts | A.C. Bridge-Owen's Bridge       |                                                      |
| is riggs Affotted  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5                    |                                 |                                                      |
| Parieo's Available |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                    |                                 |                                                      |
| - caching          | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests                |                                 |                                                      |
| 2                  | * Sect 13 16880)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                                 |                                                      |

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TOAC CO-STEDENATION V. C. COLLEGE, ISLAMPUR Yashwaataaa Caasaa atahayidyalayid Ukubu (BLAMTISTI, (Bist Sang

# ANNUAL TEACHING PLAN

Academic Year: 2019 - 2020

Class: B.Sc.I

Subject: English (Comp)

Paper No: B

Paper Title: English for Communication

| 1            | 31                        |       | Topic /Unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Sub-units Planned |
|--------------|---------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Month: No    |                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   |
| Teaching I   | ays                       | 13    | Module V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                   |
| Periods All  | Periods Allotted          |       | A. Telephonic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |
| Periods Av   | ailable                   | 09    | Communication                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |
| Teaching     | Practical's/<br>Tutorials | Tests |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | =                 |
| Month: De    | cember                    |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   |
| Teaching D   | ays                       | 25    | Module V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                   |
| Periods All  | otted                     | 18    | B. Lost Forest                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                   |
| Periods Av   | ailable                   | 17    | C. Stopping by the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 8                 |
| Teaching     | Practical's/<br>Tutorials | Tests | Wood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |
| Month: Jan   | nuary                     | 27    | Module VI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |
| Teaching D   | ays                       | 28    | A. English for Specific                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                   |
| Periods Alle | otted                     | 19    | Purposes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                   |
| Periods Ava  | ilable                    | 18    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   |
| Teaching     | Practical's/<br>Tutorials | Tests | B. Putting Data to Effective use                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                   |
| Month: Fel   | ruary                     |       | M. J. I. VIII                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |
| Teaching D   |                           | 24    | Module VII A. English for                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |
| Periods Allo |                           | 15    | Advertising                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                   |
| Periods Ava  |                           | 14    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   |
| Teaching     | Practical's/<br>Tutorials | Tests | B. An Epitaph                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |
| Month: Ma    | rch                       |       | Module VIII                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                   |
| Teaching Da  |                           | 12    | National VIII                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |
| Periods Allo |                           | 10    | A. The Golden Touch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                   |
| Periods Ava  | CACACACACAC               | 10    | The state of the s |                   |
| Teaching     | Practical's/ Tutorials    | Tests | B. Offering in the Temple                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |

Teacher

Signature of the Principal

Teachers Name: Miss. N. S. Atugade

Subject : Physics

Class

: B.Sc Part - I (Sem II)

Paper No: III

Paper Title: Electricity & Magnetism

|                   |                          |                                            | Topic /Unit                                                          | Sub-units Planned                                |
|-------------------|--------------------------|--------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------|
| Month: Nove       | mber                     |                                            |                                                                      |                                                  |
| Teaching Day      | 'S                       |                                            |                                                                      |                                                  |
| Periods Allott    | Periods Allotted         |                                            |                                                                      |                                                  |
| Periods Available |                          | ]                                          |                                                                      |                                                  |
| Teaching          | Practicals/<br>Tutorials | Tests                                      |                                                                      |                                                  |
| Month: Dece       | mber                     |                                            |                                                                      | Biot savorts law,                                |
| Teaching Day      | /S                       | 14                                         | 1. Magnetism                                                         | applications_ straight                           |
| Periods Allot     |                          | 13                                         |                                                                      | conductor, circular coil,                        |
| Periods Avail     | able                     |                                            |                                                                      | solenoid, divergence and curl of magnetic field, |
| Teaching          | Practicals/<br>Tutorials | Tests                                      | <ul><li>10) Thevni's theorem</li><li>11) use of Multimeter</li></ul> | vector potential.                                |
|                   | 2                        |                                            | 11) use of Wintillieter                                              |                                                  |
|                   | 2                        |                                            | 46                                                                   | A                                                |
| Month: Janu       |                          | 10                                         | 1.Magnetism                                                          | Ampere's circuital law, magnetic intensity,      |
| Teaching Day      |                          | 12                                         |                                                                      | permiability, magnetic                           |
| Periods Allot     | 5 G 95                   | 11                                         |                                                                      | susceptibility, dimagnetic,                      |
| Periods Avai      | lable                    | N (17 - 12 - 12 - 12 - 12 - 12 - 12 - 12 - |                                                                      | paramagatic, ferromagnetic substance.            |
| Teaching          | Practicals/<br>Tutorials | Tests                                      | 12) LCR(in series)                                                   | substance.                                       |
|                   |                          |                                            | 13) LCR(in parallel)                                                 |                                                  |
|                   | 2                        |                                            |                                                                      |                                                  |
| Month: Feb        | ruary                    |                                            |                                                                      | Faradays law of                                  |
| Teaching Da       | ys                       | 15                                         | 3. Electromagnetic                                                   | elelectromagnetic                                |
| Periods Allot     | ted                      | 14                                         | Induction                                                            | induction, Lenz law ,self and mutual induction   |
| Periods Avai      | lable                    |                                            |                                                                      | and mutual induction                             |
| Teaching          | Practicals/              | Tests                                      | 14)Keters pendulum                                                   |                                                  |
|                   | Tutorials                | Tests                                      | 15) Bar pendulum                                                     |                                                  |

| L of single M of seconds coil, energy stored magnetic Field |  |
|-------------------------------------------------------------|--|
|                                                             |  |
|                                                             |  |

Sign of the Head

Y. C. COLLEGE, ISLAMPUR

Yashwantrao Chavnn Mahavidyalaya URUN-ISLAMPUR, (Dist Sang

Sign of the Principal

Teachers Name: Mrs. P. A. Shaha

Subject : Chemistry

Paper No: III & IV

Class

: B.Sc Part - I (Sem II)

Paper Title: Physical Chemistry

**Analytical Chemistry** 

|                    |                          |       | Topic /Unit                           | Sub-units Planned                                                                                                                                                                                                                                                                                                                        |
|--------------------|--------------------------|-------|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: Nove        | mber                     |       |                                       |                                                                                                                                                                                                                                                                                                                                          |
| Teaching Day       | /S                       |       |                                       | O C                                                                                                                                                                                                                                                                                                                                      |
| Periods Allot      | Periods Allotted         |       |                                       |                                                                                                                                                                                                                                                                                                                                          |
| Periods Avail      | able                     |       |                                       |                                                                                                                                                                                                                                                                                                                                          |
| Teaching           | Practicals/<br>Tutorials | Tests |                                       |                                                                                                                                                                                                                                                                                                                                          |
| Month: Dece        | mber                     |       | 1. Introduction to                    | Analytical processes                                                                                                                                                                                                                                                                                                                     |
| Teaching Day       | ys                       |       | Analytical Chemistry                  | Importance & Methods of                                                                                                                                                                                                                                                                                                                  |
| Periods Allot      | 10.                      |       | 1                                     | analysis, Sampling of                                                                                                                                                                                                                                                                                                                    |
| Periods Avai       | lable                    |       |                                       | solids, liquids & gases.<br>Errors & Types of errors.                                                                                                                                                                                                                                                                                    |
| Teaching           | Practicals/<br>Tutorials | Tests | Inorganic Chemistry Organic Chemistry | Significant figures, mean median, S. D, Problems  1. Estimation of amount of acetic acid from giver vinegar sample. 2. Quality control- To determine percentage purity of given soda ash sample Na <sub>2</sub> CO <sub>3</sub> 1. Estimation of Aspirin 2. Organic qualitative analysis Identification of organic compound- Oxalic acid |
| NAMES OF TRANSPORT | 4                        |       |                                       | Districts beside toward                                                                                                                                                                                                                                                                                                                  |
| Month: Janu        | •                        |       | 2. Chromatography                     | Principle, basic terms, classification of                                                                                                                                                                                                                                                                                                |
| Teaching Da        |                          |       | _                                     | Chromatography                                                                                                                                                                                                                                                                                                                           |
| Periods Allotted   |                          | _     | Paper, Thin Laye                      |                                                                                                                                                                                                                                                                                                                                          |
| Periods Avai       | Practicals/<br>Tutorials | Tests |                                       | Chromatography Principle, Methodology Applications, Advantage & disadvantages  1. Organic qualitativ                                                                                                                                                                                                                                     |

|               |                          |          | Organic Chemistry      | analysis Identification of organic compound- Urea, betanaphthol                                                                                                                                                 |
|---------------|--------------------------|----------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                          |          | Physical Chemistry     | Determination of heat capacity of calorimeter for different volumes                                                                                                                                             |
| ×             |                          |          | Inorganic Chemistry    | 1. To determine quantity of Fe(II) ions from the given solutions by titrating it with 0.1N K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> solution by using internal indicator                                   |
|               | 4                        | 1        |                        |                                                                                                                                                                                                                 |
| Month: Febru  | ary                      |          | 1. Chemical Energetics | Thermodynamics -                                                                                                                                                                                                |
| Teaching Day  | ys                       |          |                        | first law of                                                                                                                                                                                                    |
| Periods Allot | ted                      |          |                        | thermodynamics, Spontaneous & Non- spontaneous process,                                                                                                                                                         |
| Periods Avai  | lable                    |          |                        |                                                                                                                                                                                                                 |
| Teaching      | Practicals/<br>Tutorials | Tests    | Organic Chemistry      | Carnot Cycle, Statement of Second & third law of thermodynamics  1. Organic qualitative analysis Identification of organic compound- Acetone                                                                    |
|               | 1                        |          |                        |                                                                                                                                                                                                                 |
| Month: Marc   | h                        | W        | 1. Chemical Energetics | Thermochemistry -                                                                                                                                                                                               |
| Teaching Da   | .ys                      |          |                        | Concept of standard state &                                                                                                                                                                                     |
| Periods Allo  | tted                     |          |                        | standard enthalpies, Integral & differential Enthalpies,                                                                                                                                                        |
| Periods Avai  | lable                    |          |                        | Kirchhoff's equation, Bond                                                                                                                                                                                      |
|               |                          |          |                        | energy, Bond dissociation<br>energy, resonance energy -<br>Calculations                                                                                                                                         |
| Teaching      | Practicals/<br>Tutorials | Tests    | Physical Chemistry     | 1. Chemical Kinetics- to determine specific reaction rate of hydrolysis of methyl acetate in presence of HCl 2. Determination of integral enthalpy of solution of salts (NH <sub>4</sub> Cl, KNO <sub>3</sub> ) |
|               | 2                        | 1        | Last 1                 | 17010                                                                                                                                                                                                           |
| L             |                          | <u> </u> |                        | <u> </u>                                                                                                                                                                                                        |

Sign of the Head

URUN-IS Sign of the Principal

Teachers Name: Mrs. Neha N. Sali

Subject : Mathematics

Class : B. Sc. I

: B. Sc. Part I (SemII)

Paper No: DSC-6B

Paper Title: Higher Order Ordinary Differential Equations and Partial Differential Equations

| YESTING TO SEE THE |                          |                     | Topic /Unit                            | Sub-units Planned                                                                       |
|--------------------|--------------------------|---------------------|----------------------------------------|-----------------------------------------------------------------------------------------|
| Month: Deco        | ember                    | 111000000           | UNIT 1: Linear Differential Equations  | Introduction, Method of                                                                 |
| Teaching Day       | ys                       | 12                  |                                        | solution Examples of second                                                             |
| Periods Allot      | ted                      | 11                  | CCPM I-                                | order linear differential                                                               |
| Periods Avai       | lable                    |                     | Simultaneous                           | equations                                                                               |
| Teaching           | Practicals/<br>Tutorials | Tests               | differential equations                 | Simultaneous<br>differentialequations                                                   |
| 12                 | 01                       |                     |                                        |                                                                                         |
| Month: Janu        | uary                     |                     | UNIT 1: Linear                         | Methods of solving and                                                                  |
| Teaching Da        | ys                       | 13                  | Differential Equations                 | types of Ordinary                                                                       |
| Periods Allot      | ted                      | 10                  | CCPM I- Total                          | Simultaneous Differential equations                                                     |
| Periods Avai       | lable                    |                     | differential equations                 | Geometrical relation between total differential and simultaneous differential equations |
| Teaching           | Practicals/<br>Tutorials | Tests               |                                        |                                                                                         |
| 13                 | 01                       |                     |                                        |                                                                                         |
| Month: Feb         | ruary                    |                     | UNIT 2: Partial Differential Equations | 2.1 Definition, order, degree, formation, examples of PDE                               |
| Teaching Da        | ys                       | 12                  |                                        |                                                                                         |
| Periods Allo       | tted                     | 11                  | CCPM I- Radius of                      |                                                                                         |
| Periods Avai       | lable                    |                     | curvature for                          |                                                                                         |
| Teaching           | Practicals/<br>Tutorials | Tests               | parametric curve & polar curve         |                                                                                         |
| 12                 | 01                       |                     |                                        |                                                                                         |
| Month: Mai         | reh                      |                     | UNIT 2: Partial                        | Lagrange's equations and method ofsolving                                               |
| Teaching Da        | ys                       | 07                  | Differential Equations                 |                                                                                         |
| Periods Allotted   |                          | 10                  | CCPM I- Examples                       | Method of solution and                                                                  |
| Periods Available  |                          | on Charpit's method | examples to solve Charpit's            |                                                                                         |
| Teaching           | Practicals/<br>Tutorials | Tests               |                                        | method                                                                                  |
| 07                 | 01                       |                     |                                        |                                                                                         |

Sign of the Teacher

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Sign of the Principal

Yashwantrao Chavan Mahavidyalaya

2019-20

Teachers Name: Miss. Jadhav Megharani Chandrakant

Subject : Mathematics

Class

: B. Sc. Part I (Sem II)

Paper No:III

Paper Title: Differential Equations

|                     |                          |          | Topic /Unit                                                           | Sub-units Planned                                                                              |
|---------------------|--------------------------|----------|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Month: Dece         | ember                    |          | Unit 1: Differential Equations of First                               | • Differential Equations of                                                                    |
| Teaching Day        | ys                       | 13       |                                                                       | First Order and First                                                                          |
| Periods Allotted 10 |                          | 10       | Order                                                                 | Degree.                                                                                        |
| Periods Avai        | lable                    |          | CCPM-I:- Radius                                                       | 1. Exact Differential                                                                          |
| Teaching            | Practicals/<br>Tutorials | Tests    | of Curvature for<br>Cartesian curve                                   | Equations. 2. Linear Differential Equations 3. Bernoulli's Equation.                           |
| 13                  | 01                       |          |                                                                       |                                                                                                |
| Month: Jan          | uary                     |          |                                                                       | Differential                                                                                   |
| Teaching Da         | ys                       | 14       | CCPM-I:- Examples on                                                  | <b>Equations of First</b>                                                                      |
| Periods Allot       | ted                      | 11       | Exact Differential Equation                                           | Order but Not of First                                                                         |
| Periods Avai        | lable                    |          | CCPM-I:- Examples on                                                  | Degree 1. Clairaut's Form 2. Equations Reducible to Clairaut's Form.                           |
| Teaching            | Practicals/<br>Tutorials | Tests    | Clairaut's Form                                                       |                                                                                                |
| 14                  | 02                       |          |                                                                       |                                                                                                |
| Month: Feb          | ruary                    | <u> </u> | Unit 2: Linear Differential Equations CCPM-I:- Examples on LDE's with | Linear Differential     Equations with     Constant Cofficients                                |
| Teaching Da         | ys                       | 11       |                                                                       |                                                                                                |
| Periods Allo        | tted                     | 11       |                                                                       |                                                                                                |
| Periods Avai        | lable                    |          |                                                                       |                                                                                                |
| Teaching            | Practicals/<br>Tutorials | Tests    | Constant Coefficient's.                                               |                                                                                                |
| 11                  | 10                       |          |                                                                       |                                                                                                |
| Month: Ma           | reh                      |          |                                                                       | Homogeneous Linear                                                                             |
| Teaching Da         | ıys                      | 12       |                                                                       | Differential<br>Equations (The                                                                 |
| Periods Allo        | tted                     | 10       | A                                                                     |                                                                                                |
| Periods Available   |                          |          | Cauchy-Euler                                                          |                                                                                                |
| Teaching            | Practicals/<br>Tutorials | Tests    |                                                                       | Equations) 1. Legendre's Linear Equations. 2. Method of Solution of Legendre's Linear Equation |

Sign of the Teacher

Sign of the Head

IQAC CO-ORDINATOR Y. C. COLLEGE, ISLAMPUR

Sign of the Principal **Principal** 

Yashwantrao Chavan Mahavidyalaya URUN-ICLASSPUR, (Dist. Sang

Teachers Name: Miss. P. V. Patil

Subject : Chemistry

Paper No: III

Class

: B.Sc Part - I (Sem II)

Paper Title: Physical Chemistry

|              |                          |       | Topic /Unit                            | Sub-units Planned                                                                                                                                                                                                                                                                                                   |
|--------------|--------------------------|-------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: Nov   | ember                    |       | •                                      |                                                                                                                                                                                                                                                                                                                     |
| Teaching Da  | ıys                      |       |                                        |                                                                                                                                                                                                                                                                                                                     |
| Periods Allo | tted                     |       | ,                                      |                                                                                                                                                                                                                                                                                                                     |
| Periods Ava  | ilable                   |       |                                        |                                                                                                                                                                                                                                                                                                                     |
| Teaching     | Practicals/<br>Tutorials | Tests |                                        |                                                                                                                                                                                                                                                                                                                     |
| Month: Dec   | ember                    |       |                                        | Law of Chemica                                                                                                                                                                                                                                                                                                      |
| Teaching Da  | 10-cuatr- co-patecers    | 15    |                                        | equilibrium, Equilibrium                                                                                                                                                                                                                                                                                            |
| Periods Allo | •                        | 14    | 2. Chemical Equilibrium                | constant equations                                                                                                                                                                                                                                                                                                  |
| Periods Ava  | STORESTON                | I A T |                                        | Relationship between Kp                                                                                                                                                                                                                                                                                             |
| Teaching     | Practicals/<br>Tutorials | Tests | Inorganic Chemistry  Organic Chemistry | Kc & Kx for reactions, Le Chatelier's Principle  1. Estimation of amount of acetic acid from given vinegar sample.  2. Quality control- To determine percentage purity of given soda ash sample Na <sub>2</sub> CO <sub>3</sub> 1. Estimation of Aspirin  2. Organic qualitative analysis Identification of organic |
|              | 4                        | 1     |                                        | compound- Oxalic acid                                                                                                                                                                                                                                                                                               |
| Month: Jan   | uary                     |       |                                        | Assumptions of kinetic                                                                                                                                                                                                                                                                                              |
| Teaching Da  |                          | 17    | 3. Kinetic Theory of Gases             | Assumptions of kinetic theory of gases &                                                                                                                                                                                                                                                                            |
| Periods Allo |                          | 16    | medic incory of dases                  | derivation, Ideal & Non-                                                                                                                                                                                                                                                                                            |
| Periods Avai | MARKOTO CONTRACTOR OF    |       |                                        | ideal gases, Derivation of                                                                                                                                                                                                                                                                                          |
| Teaching     | Practicals/<br>Tutorials | Tests | Organic Chemistry                      | real gases, van der Waal's equation  1. Organic qualitative analysis Identification of organic compound- Urea, beta -naphthol                                                                                                                                                                                       |

|              |                          |       | Physical Chemistry                      |                                                                                                                                                                                                                                                       |
|--------------|--------------------------|-------|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| œ            |                          |       | Inorganic Chemistry                     | 1.Determination of heat capacity of calorimeter for different volumes  1. To determine quantity of Fe(II) ions from the given solutions by titrating it with 0.1 N K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> solution by using internal indicator |
|              | 4                        | 1     |                                         |                                                                                                                                                                                                                                                       |
| Month: Feb   | ruary                    |       |                                         | Critical phenomena,                                                                                                                                                                                                                                   |
| Teaching Da  | ıys                      | 14    | 3. Kinetic Theory of Gases              | Maxwell Boltzman                                                                                                                                                                                                                                      |
| Periods Allo | tted                     | 14    | 55                                      | distribution laws,                                                                                                                                                                                                                                    |
| Periods Ava  | ilable                   |       |                                         | Numerical Problems                                                                                                                                                                                                                                    |
| Teaching     | Practicals/<br>Tutorials | Tests | 4. Chemical Kinetics  Organic Chemistry | Factors affecting rate of reaction, order & molecularity of reactions, Zero order reaction  1. Organic qualitative analysis                                                                                                                           |
|              |                          |       |                                         | Identification of organic compound- Acetone                                                                                                                                                                                                           |
|              | L                        | 1     |                                         |                                                                                                                                                                                                                                                       |
| Month: Mai   |                          |       |                                         | First & Second order                                                                                                                                                                                                                                  |
| Teaching Da  |                          | 13    |                                         | reaction- Equations,                                                                                                                                                                                                                                  |
| Periods Allo |                          | 12    | 4. Chemical Kinetics                    | Characteristics, Examples,                                                                                                                                                                                                                            |
| Periods Avai | lable                    |       |                                         | Theories of reaction rates                                                                                                                                                                                                                            |
| Teaching     | Practicals/<br>Tutorials | Tests | Physical Chemistry                      | Collision & transition state theory  1. Chemical Kinetics - to determine specific reaction rate of hydrolysis of methyl acetate in presence of HCl 2. Determination of integral enthalpy of solution of salts (NH4Cl, KNO3)                           |
|              | 2                        | 1     |                                         |                                                                                                                                                                                                                                                       |
|              | J                        | 1     |                                         |                                                                                                                                                                                                                                                       |

Last

Sign of the Teacher

Sign of the Head

TOTAL COLLEGE, ISLAMPUR

Sign of the Principal

Yashwantrao Chavan Mahavidyalaya URUN-ILLAMPUR, (Cist. Sang

Teachers Name: Kadam G. B.

Subject : Botany

Class

: BSC. Part I (Sem II)

Paper No: III

Paper Title: PLANT ECOLOGY

|                     | W - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 1.1 - 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| Teaching Days       | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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| Teaching            | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | The second secon |
| Month: Decer        | nber                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | VX-11-11-11-11-11-11-11-11-11-11-11-11-11 | UNIT-1 a) ECOLOGICAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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| Teaching Days       | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 12                                        | FACTORS AND ADAPTATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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| Periods Allotte     | ed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 11                                        | 20 2 Martin Control Co | 1.3 Ecological Adaptations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Periods Availa      | ible                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                           | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | The second secon |
| Teaching            | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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| 11                  | 02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 01                                        | Study of Meteorological<br>Instruments<br>Study of Water Holding<br>Capacity of different soils                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Rain Gauge, Dry and wer<br>thermometer,<br>Using different soil sampale.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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| Teaching Day         | /S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 12    | Sittle 1d) Dictor III 123                                             | 1.2Classification                                                       |
| Periods Allott       | 10 to | 11    | -                                                                     | 1.3 Economic Importance                                                 |
| Periods Avail        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |       | -                                                                     | 1.4Morphology, anatomy and                                              |
| Teaching             | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Tests |                                                                       | life cycle a. Hepaticopsida: Riccia b Bryopsida- Funaria                |
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| reaching             | Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Tests |                                                                       | naorat                                                                  |
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| Teaching Day         | 'S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 10    | STATE OF ENTIRE                                                       | Classification , 2.3Economic importance of gymnosperms.                 |
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| 10                   | 02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 01    | Study of Pteris<br>Study of Gnetum                                    | Identification, Classification                                          |
| Month: Octo          | ber                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |       | UNIT-2GYMNOSPERMS                                                     | B. Morphology and anatomy                                               |
| Teaching Day         | 'S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 12    | ľ                                                                     | Life Cycle Gnetopsida                                                   |
| Periods Allott       | ed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 10    |                                                                       | Gnetum                                                                  |
| Periods Available    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |       | #USS                                                                  |                                                                         |
| Teaching             | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Tests |                                                                       |                                                                         |
| 10                   | 01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |       | Determination of soil and water pH.                                   | pH paper                                                                |

Sign of the Teacher

Exedor

Sign of the Head

IQAC CO-ORDINATOR
Y. C. COLLEGE, ISLAMPUR

Sign of the Principal

Yashwantrao Chavan Mahavidvalaya URUN-ISLAMPUR, (Dist. Sang

Teachers Name: Miss. S. D. Kulkarni.

Subject : Chemistry Class : B.Sc Part - 1 (Sem II) Paper No : IV Paper Title :

Analytical Chemistry

|             |                          |       | Topic /Unit             | Sub-units Planned                                                                                                                               |  |
|-------------|--------------------------|-------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Month: No   | vember                   |       |                         |                                                                                                                                                 |  |
| Teaching D  | )ays                     | 2     | *                       |                                                                                                                                                 |  |
| Periods All | otted                    |       |                         |                                                                                                                                                 |  |
| Periods Av  | ailable                  |       | -                       |                                                                                                                                                 |  |
| Teaching    | Practicals/<br>Tutorials | Tests |                         |                                                                                                                                                 |  |
| 2           |                          |       |                         |                                                                                                                                                 |  |
| Month: De   | rcember                  |       | 3.Theory of titrimetric | Important terms, Acid                                                                                                                           |  |
| Feaching E  | Feaching Days 5          |       | analysis                | base<br>indicators-Phenolphthalei                                                                                                               |  |
| Periods All | otted                    | 6     | n, Methyl Orai          | n, Methyl Orange, Theory of indicators- Ostwald's                                                                                               |  |
| Periods Av  | ailable                  |       |                         | ionization theory,                                                                                                                              |  |
| Teaching    | Practicals/<br>Tutorials | Tests |                         | Neutralisation curves & Choice of indicators                                                                                                    |  |
|             |                          |       | Inorganic Chemistry     | Estimation of amount acetic acid from given vinegar sample.     Quality Control-To determine percentage purity of given soda ash sample Na2CO3. |  |
|             |                          |       | Organic Chemistry       | 1. Estimation of Aspirin 2. Organic qualitative analysis Identification of organic compound-Oxalic acid                                         |  |

| 01                             | 04                       |                     |                                                                                                                                         |                                                                                                                              |
|--------------------------------|--------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Month: Ja                      | inuary                   |                     | 3.Theory of titrimetric                                                                                                                 | Compleximetric titrations                                                                                                    |
| Teaching I                     | Teaching Days 4          |                     | analysis                                                                                                                                | Teo 3                                                                                                                        |
| Periods Al                     | lotted                   | 6                   | 4. Water analysis                                                                                                                       | Physical analysis,                                                                                                           |
| Periods Av                     | ailable                  |                     |                                                                                                                                         | Chemical analysis-COD and BOD                                                                                                |
| Teaching Practicals/ Tutorials | 107                      |                     | Organic Chemistry                                                                                                                       | 1.Organic qualitative analysis identatification of organic compound-Urea, beta naphthol.                                     |
|                                |                          | Physical Chemistry  | Determination of heat capacity of calorimeter for different volumes.                                                                    |                                                                                                                              |
|                                |                          | Inorganic Chemistry | 2. To determine quantity of Fe(II) ions from the given solutions by titrating it with 0.1N K2Cr2O7 solution by using internal indicator |                                                                                                                              |
| 2                              | 2                        |                     |                                                                                                                                         |                                                                                                                              |
| Month: Fe                      | hruary                   |                     | 5.Analysis of fertilizers                                                                                                               | Types of Fertilizers, Necessity and qualities of good fertilizers, sampling and sample preparations,  1. Organic qualitative |
| Teaching I                     | )ays                     | 4                   |                                                                                                                                         |                                                                                                                              |
| Periods Al                     | lotted                   | 6                   |                                                                                                                                         |                                                                                                                              |
| Periods Av                     | ailable                  |                     | Organic Chemistry                                                                                                                       |                                                                                                                              |
| Teaching                       | Practicals/<br>Tutorials | Tests               |                                                                                                                                         | analysis identification of organic compound-Acetone                                                                          |
| 3                              | - Same                   |                     |                                                                                                                                         |                                                                                                                              |
| Month: M                       | arch                     |                     | 5. Analysis of fertilizers                                                                                                              | analysis of                                                                                                                  |
| Teaching I                     | Teaching Days 2          |                     |                                                                                                                                         | nitrogen.phosphorus and potassium. analysis of                                                                               |
| Periods Al                     | Periods Allotted 6       |                     |                                                                                                                                         | total nitrogen by kjeldahl's                                                                                                 |
| Periods Av                     | ailable                  |                     |                                                                                                                                         | method,Phosphomolybdat                                                                                                       |
| Teaching                       | Practicals/              | Tests               |                                                                                                                                         | and STPB method                                                                                                              |

|    | Tutorials | Physical Chemistry | 1. Chemical Kinetics-to determine specific reaction rate of hydeolysis of methyl acetate in presence of HCl.  2. Determination of integral enthalpy of solution of salts (NH4Cl,KNO3) |
|----|-----------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 04 | 02        |                    |                                                                                                                                                                                       |

Sign of the Head

IOAC CO-ORDINATOR
Y. C. COLLEGE, ISLAMPUA

Sign of the Principal

Yashwantrao Charris Mahandralaya URUN42LAMBUR, EL SANG

Teachers Name: Mr. Sawant Rajendra Jagannat

Subject : Zoology

Class

: B. Sc. Part I (Sem II)

Paper No :III

Paper Title- CELL BIOLOGY & EVOLUTIONARY BIOLOGY

| *************************************** |                          |                         | Topic /Unit                | Sub-units Planned                                                          |  |
|-----------------------------------------|--------------------------|-------------------------|----------------------------|----------------------------------------------------------------------------|--|
| Month: Nov                              | ember                    |                         | UNIT -1                    | Cell theory and diversity in                                               |  |
| Teaching Da                             | ys                       |                         | Cell structure             | cell size and shape                                                        |  |
| Periods Allot                           | Periods Allotted         |                         |                            | Structure of nucleus                                                       |  |
| Periods Avai                            | lable                    |                         |                            | Nucleus with reference to Nuclear membrane.                                |  |
| Teaching                                | Practicals/<br>Tutorials | Tests                   |                            | Nucleoplasm, Chromatin and nucleolus.                                      |  |
| Month: Dec                              | ember                    | <u> </u>                | Structure of Chromosome    | With reference to                                                          |  |
| Teaching Da                             | ys                       | 12                      |                            | Morphology and                                                             |  |
| Periods Allo                            | tted                     |                         |                            | organization Polytene                                                      |  |
| Periods Avai                            | lable                    | <del></del>             |                            | Chromosomes Ultra structure and functions of the                           |  |
| Teaching                                | Practicals/<br>Tutorials | Tests                   |                            | following Plasma membrane Mitochondria                                     |  |
| Month: January                          |                          | Unit 2: History of Life | Major Events in History of |                                                                            |  |
| Teaching Da                             | ys                       | 13                      |                            | Life<br>Introduction to Evolutionary<br>Theories                           |  |
| Periods Allo                            | tted                     |                         |                            |                                                                            |  |
| Periods Avai                            | lable                    |                         |                            |                                                                            |  |
| Teaching                                | Practicals/<br>Tutorials | Tests                   |                            |                                                                            |  |
| Month: Feb                              | ruary                    |                         |                            | Lamarckism, Darwinism,                                                     |  |
| Teaching Da                             | ys                       | 12                      |                            | Neo-Darwinism                                                              |  |
| Periods Allo                            | tted                     |                         |                            | Direct Evidences of                                                        |  |
| Periods Avai                            | lable                    |                         |                            | Evolution Types of famile                                                  |  |
| Teaching                                | Practicals/<br>Tutorials | Tests                   |                            | Types of fossils.<br>Incompleteness of fossil<br>record, Dating of fossils |  |
| Month: Mai                              | reh                      |                         | Extinction                 | Mass extinction (Causes,                                                   |  |
| Teaching Da                             | ys                       | 12                      |                            | Names of five major                                                        |  |
| Periods Allo                            | Periods Allotted         |                         | -                          | extinctions, K-T extinction in                                             |  |
| Periods Avai                            | lable                    | 1                       |                            | detail). Role of                                                           |  |
| Teaching                                | Practicals/<br>Tutorials | Tests                   |                            | extinction in evolution                                                    |  |

Sign of the Teacher

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Y. C. COLLLISE, INDUVERSAL

Sign of the Principal

Principal

Yashwantrao Chavan Mahawidvelava URUN-ISLAMPUR, (Dist. Sang

2019-20

'Teachers Name: Mr. Sawant Rajendra Jagannat

Subject :Zoology

Class

: B. Sc. Part I (Sem II)

Paper No :IV

Title-

(GENETICS)

| Month. N             |                          |        | Topic /Unit                                          | Sub-units Planned                                                                                                        |
|----------------------|--------------------------|--------|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Month: No Teaching D |                          |        | UNIT – I<br>Introduction to Genetics                 | Mendel's work on                                                                                                         |
| Periods All          | Periods Allotted         |        |                                                      | transmission of traits,<br>Genetic Variation, Molecula                                                                   |
| Periods Ava          | ailable                  |        |                                                      | basis of Genetic                                                                                                         |
| Teaching             | Practicals/<br>Tutorials | Tests  |                                                      | Information                                                                                                              |
| Month: De            | cember                   | H.     | Mendelian and post                                   | 85.                                                                                                                      |
| Teaching D           | ays                      | 12     | Mendelian Genetics                                   | Principles of Inheritance,                                                                                               |
| Periods Allo         | otted                    |        |                                                      | Incomplete dominance co-<br>dominance, gene interaction,                                                                 |
| Periods Ava          | ilable                   |        |                                                      | Multiple alleles w.r.t. ABO,                                                                                             |
| Teaching             |                          |        |                                                      | Rh blood groups and coat colour in rabbit, sex linked                                                                    |
| Month: Jan           |                          |        | Unit 3:<br>Mutations                                 | inheritance. Linkage and process of crossing over, Coupling and repulsion theory, Cytological evidence of crossing over. |
| Teaching Da          |                          | 13     |                                                      |                                                                                                                          |
| Periods Allo         |                          |        |                                                      |                                                                                                                          |
| Periods Ava          | ilable                   |        |                                                      |                                                                                                                          |
| Teaching             | Practicals/<br>Tutorials | Tests  |                                                      |                                                                                                                          |
| Month: Feb           | ruary                    |        | Chromosomal Mutations:                               |                                                                                                                          |
| Teaching Da          | ys                       | 12     | Cinomosomai Millations:                              | Deletion, Duplication,<br>Inversion, Translocation,<br>Aneuploidy and<br>Polyploidy, induced gene<br>mutation.           |
| Periods Allor        | ted                      | 100000 |                                                      |                                                                                                                          |
| Periods Avai         | lable                    |        |                                                      |                                                                                                                          |
| Teaching             | Practicals/<br>Tutorials | Tests  |                                                      |                                                                                                                          |
| Month: Mar           |                          |        | Sex Determination                                    | Say Oh                                                                                                                   |
| Teaching Day         |                          | 12     |                                                      | Sex Chromosomal theory of                                                                                                |
| Periods Allotted     |                          | -      | sex determination, Genic<br>balance theory, Haploidy |                                                                                                                          |
| Periods Avail        | able                     |        |                                                      | Diploidy                                                                                                                 |
| Teaching             | Practicals/<br>Tutorials | Tests  |                                                      | mechanism, Environmental sex determination, dosage compensation.                                                         |

Sign of the Teacher

Sign of the Principal Principal.

Yashwantrao Chavan Mahavidyalava URUNASLAMPUR, (The Sang

Teachers Name: Sawant Rajendra Jagannath

Subject : Zoology

Class

: B. Sc. Part I (Sem I)

Paper No :  $\mathbf{I}$ 

Paper Title: (ANIMAL DIVERSITY-I)

| Month: 4      | nanet                          |       | Topic /Unit                             | Sub-units Planned                                                                                                                                                       |  |  |
|---------------|--------------------------------|-------|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
|               | Month: August Teaching Days 12 |       | Unit – 1: Kingdom                       | General characters and                                                                                                                                                  |  |  |
| Periods All   |                                | 12    | Protista Phylum-<br>Porifera, Cnidaria  | classification up to classes;                                                                                                                                           |  |  |
| Periods Av    |                                |       | Platyhelminthes                         | Locomotory Organelles and                                                                                                                                               |  |  |
|               | anaoic                         |       | Nemathelminthes                         | locomotionCanal System in<br>Sycon Polymorphism in                                                                                                                      |  |  |
| Teaching      | Practicals/<br>Tutorials       | Tests |                                         | Hydrozoa, Taenia solium And<br>Ascaris lumbricoides Life<br>history of and its parasitic<br>adaptations                                                                 |  |  |
| Month: Se     | otember                        |       | Phylum Annelida                         |                                                                                                                                                                         |  |  |
| Teaching D    |                                | 11    | Phylum Arthropoda                       | General characters and classification up to classes; Metamerism in Annelida                                                                                             |  |  |
| Periods Allo  | otted                          |       | Mollusca                                |                                                                                                                                                                         |  |  |
| Periods Ava   | Periods Available              |       | - , Echinodermata                       | General characters Vision in                                                                                                                                            |  |  |
| Teaching      | Practicals/<br>Tutorials       | Tests |                                         | Arthropoda, Metamorphosis in Insects Torsion in gastropod Water-vascular system in                                                                                      |  |  |
| Month: Oct    | ober                           |       | Unit 2- Phylum                          | Asteroidea                                                                                                                                                              |  |  |
| Teaching Da   | lys                            | 12    | Annelida Phylum Arthropoda              | General characters and classification up to classes; Metamerism in Annelida Vision in Arthropoda, Metamorphosis in Insects Metamerism in Annelida Vision in Arthropoda, |  |  |
| Periods Allo  |                                | 12    |                                         |                                                                                                                                                                         |  |  |
| Periods Avai  | ilable                         |       |                                         |                                                                                                                                                                         |  |  |
| Teaching      | Practicals/<br>Tutorials       | Tests |                                         |                                                                                                                                                                         |  |  |
| Month: Nov    |                                |       | Phylum Mollusca                         | Metamorphosis in Insects General characters and                                                                                                                         |  |  |
| Feaching Da   |                                | 3     | Phylum Echinodermata                    | classification up to classes;                                                                                                                                           |  |  |
| Periods Allot |                                |       | 200 2 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 | Torsion in gastropods                                                                                                                                                   |  |  |
| Periods Avai  | lable                          |       |                                         | Water-vascular system in                                                                                                                                                |  |  |
| Teaching      | Practicals/<br>Tutorials       | Tests |                                         | Asteroidea System in                                                                                                                                                    |  |  |

Sign of the Teacher

Sign of the Head

Sign of the Principal

IQAC CO-OPTYMENT Y. C. CGLEBGE, ISLAMPUR Yashwantrao Chavan Mahavidyolaya URUN-ISLAMPUR, (Dist. Sang

2019-20

Teachers Name: Mr. Sawant Rajendra jagannath

Subject : Zoology

Class

: B. Sc. Part I

Paper No:II

Paper Title: 16 A (ANIMAL PHYSIOLOGY)

|                  |                          |       | Topic /Unit           | Sub-units Planned                                                                                                                   |  |
|------------------|--------------------------|-------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------|--|
| Month: Augu      | st                       |       | Unit – 1:- Unit 1:    | Structure of a neuron. Resting                                                                                                      |  |
| Teaching Days 13 |                          | 13    | Nerve and muscle      | membrane potential, Origin of                                                                                                       |  |
| Periods Allotte  | ed                       |       |                       | Action potential and its                                                                                                            |  |
| Periods Availa   | ıble                     |       |                       | propagation in non-myelinated nerve fibers, Ultra-structure of                                                                      |  |
| Teaching         | Practicals/<br>Tutorials | Tests |                       | skeletal muscle, Molecular and chemical basis of muscle contraction                                                                 |  |
| Month: Septe     | mber                     |       | Digestion             | Physiology of digestion in the                                                                                                      |  |
| Teaching Days    | S                        | 12    |                       | alimentary canal; Absorption of                                                                                                     |  |
| Periods Allotte  | ed                       |       |                       | carbohydrates, proteins, lipids                                                                                                     |  |
| Periods Availa   | ible                     |       |                       |                                                                                                                                     |  |
| Teaching         | Practicals/<br>Tutorials | Tests |                       |                                                                                                                                     |  |
| Month: Octol     | ber                      |       | Unit – 2: Respiration | Pulmonary ventilation, Transport of Oxygen and carbon dioxide in blood Excretion Structure of nephron, Mechanism of Urine formation |  |
| Teaching Days    | S                        | 13    |                       |                                                                                                                                     |  |
| Periods Allotte  | ed                       |       |                       |                                                                                                                                     |  |
| Periods Availa   | ıble                     |       |                       |                                                                                                                                     |  |
| Teaching         | Practicals/<br>Tutorials | Tests |                       |                                                                                                                                     |  |
| Month: Nove      | mber                     |       | Cardiovascular system | Composition of blood,                                                                                                               |  |
| Teaching Day     | S                        | 4     | 3                     | Structure of Heart, Origin and                                                                                                      |  |
| Periods Allotte  | ed                       |       |                       | conduction of the eardiac                                                                                                           |  |
| Periods Availa   | able                     |       |                       | impulse,                                                                                                                            |  |
| Teaching         | Practicals/<br>Tutorials | Tests |                       | Cardiac cycle                                                                                                                       |  |
| Teaching Day     | S                        |       |                       |                                                                                                                                     |  |

Sign of the Teacher

Sign of the Head

l College, Blampun

Sign of the Principal

Principal

Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang

Teachers Name: Pudale Pratibha Dilip

Subject : Computer Science

Class

: B. Sc. Part I (Sem I)

Paper No : I

Paper Title: Problem solving using computers (DSC-11A)

|                                                             |                           |                                                      | Topic /Unit                                                                                                                                                            | Sub-units Planned                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------|---------------------------|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: Aug Teaching Days Periods Allotted Periods Available |                           | Unit – 1: -<br>Problem<br>solving using<br>computers | <ul> <li>Planning the computer program</li> <li>1)concept of problem solving</li> <li>2) Problem definition</li> <li>3) Program design</li> <li>4)Debugging</li> </ul> |                                                                                                                                                                                                                                                                                                                             |
| Teaching                                                    | Practicals/<br>Tutorials  | Tests                                                |                                                                                                                                                                        | 5)Types of error, 6)Documentation.                                                                                                                                                                                                                                                                                          |
| Month: Sept                                                 |                           |                                                      | Unit – 1: -                                                                                                                                                            | Logical Continuum of programming                                                                                                                                                                                                                                                                                            |
| Teaching Day                                                | /S                        |                                                      | Problem                                                                                                                                                                | 1)Linux and C,                                                                                                                                                                                                                                                                                                              |
| Periods Allott                                              | ted                       |                                                      | solving using                                                                                                                                                          | 2)Introduction to GCC and compiler                                                                                                                                                                                                                                                                                          |
| Periods Avail                                               | able                      |                                                      |                                                                                                                                                                        | 3) compilation process                                                                                                                                                                                                                                                                                                      |
|                                                             | Practicals/<br>Tutorials  | Tests                                                |                                                                                                                                                                        | 4) Data types  1) build in standard library, Nitty-Gritty Prog. structure  5) Algorithm, Pseudo code, program  6) Structure of c program, Vi editor  7) Whittling first Prog., Checking prog working& execution of make file  8) variable declaration: and Input output statement  9) Format Specifies, 10) Escape Sequence |
| Month: Oct                                                  | 10                        |                                                      | Unit – 2:                                                                                                                                                              | A) Decision making and Looping                                                                                                                                                                                                                                                                                              |
| Teaching Day                                                | /S                        |                                                      | Control                                                                                                                                                                | constructs                                                                                                                                                                                                                                                                                                                  |
| Periods Allot                                               | ted                       |                                                      | Structures and                                                                                                                                                         | 1) if statement, if-else statement, nested                                                                                                                                                                                                                                                                                  |
| Periods Available                                           |                           | Arrays                                               | if elese. The switch case statement. The                                                                                                                               |                                                                                                                                                                                                                                                                                                                             |
| Teaching                                                    | Practical's/<br>Tutorials | Tests                                                |                                                                                                                                                                        | while loop, odd Loop (do –while loop) for loop infinity loop                                                                                                                                                                                                                                                                |
| Teaching                                                    | Practical/<br>Tutorials   | Tests                                                |                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                             |

Sign of the Teacher

TOAC CO-DRIDENATOR

Sign of the Head

Sign of the Principal

Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang

Teachers Name: Pudale Pratibha Dilip

Subject : Computer Science

Class

: B. Sc. Part I (Sem II)

Paper No: 'III

Paper Title: Programming Skills Using 'C' (DSC-11B)

|                             |                          | )     | <i>A</i>                          | Topic /Unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Sub-units Planned                                             |  |
|-----------------------------|--------------------------|-------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|--|
| Month: Dec<br>Teaching Days |                          |       | Unit – 1: - Pointer and Functions |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Pointer data type , Pointer declaration , Pointer Initiations |  |
| Periods Allotte             | 3                        |       |                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Array and Pointer, Pointer and                                |  |
| Periods Availa              | eriods Available         |       |                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | One dimensional, Two                                          |  |
| Teaching                    | Practicals/<br>Tutorials | Tests |                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | dimensional Arrays                                            |  |
| Month:Jan                   |                          |       |                                   | nit – 1: - Pointer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Programming for functional functions: ,                       |  |
| Teaching Days               | 5                        |       | an                                | d Functions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Functional Declaration Function                               |  |
| Periods Allotte             | ed                       |       |                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Definition, Function Call                                     |  |
| Periods Availa              | Periods Available        |       |                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                               |  |
|                             | Practicals/<br>Tutorials | Tests |                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                               |  |
|                             |                          |       | 199                               | nit – 2:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | B) Structures and File Handling                               |  |
| Month Feb                   |                          | **    |                                   | rughure and File                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1). Staucture and dynamic Memory                              |  |
| Teaching Da                 | ys                       |       | Н                                 | Tareding of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Allocation 13) red defined data type,                         |  |
| Periods Allo                | tted                     |       |                                   | Defining Structures of array structures of array structures of array structures of the structures of t |                                                               |  |
| Periods Avai                | ilable                   |       |                                   | Arrays                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | dimensional, Multidimensiona                                  |  |
| Teaching                    | Practical/<br>Tutorials  | Tests |                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                               |  |
|                             |                          |       |                                   | nit – 2:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | File Handling: Defining and Opened                            |  |
| Month : Mai                 | rch                      |       |                                   | ructure and File                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | a file Afile opening modes : read ,                           |  |
| Teaching Da                 | ıys                      |       | H                                 | arching of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | write appendiclosed a file ray                                |  |
| Periods Allotted            |                          |       | Structures and                    | Input/outher Dognation, explise or gettle Putc(), get whe Pathy as for int (4) Two                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                               |  |
| Periods Ava                 | Periods Available        |       |                                   | Arrays                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | fscanf(), dffilensionary, will wo                             |  |
| Teaching                    | Practical/<br>Tutorials  | Tests | 3                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ·                                                             |  |

Sign of the Teacher

Sign of the Head

Sign of the Principal

TOAC CO ORDINATOR

Principal
Yashwantrao Chavan Mahavidyalaya

URGN-ISTAMPUR, (Dist. Sang.

Teachers Name: Pudale Pratibha Dilip

Subject : Computer Science

Class : B. Sc. Part I (Sem I)

Paper No: II

Paper Title: Database management system (DSC-12A)

|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         | Topic /Unit                                                  | Sub-units Planned                                                                            |  |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|--------------------------------------------------------------|----------------------------------------------------------------------------------------------|--|
| Month: Aug                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         | Unit – 1: -                                                  | Introduction to Database                                                                     |  |
| Teaching Day                       | S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         | Introduction to                                              | Management system 1)Characteristics of database approach                                     |  |
| Periods Allotte                    | ed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                         |                                                              |                                                                                              |  |
| Periods Availa                     | eriods Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         | Management system                                            | 2) Data model: Hierarchical,                                                                 |  |
| Teaching                           | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests                   |                                                              | Networking,<br>Relational                                                                    |  |
| Month: Sept                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         | Unit – 1: -                                                  | Schema and instance,                                                                         |  |
| Teaching Day                       | S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         | Introduction to                                              | DBMS Architecture:                                                                           |  |
| Periods Allott                     | ed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                         | Database<br>Management system                                | 1) Three Schema Architecture                                                                 |  |
| Periods Availa                     | able                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         | Management system                                            | Internal, External, Conceptual                                                               |  |
|                                    | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests                   | Data Independence :<br>Logical ,<br>Physical                 | Logical,                                                                                     |  |
|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         | Unit – 2:                                                    | C) Entity: Entities, Domain,                                                                 |  |
| Month: Oct Teaching Da             | Ve                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                         | Entifict Retationship<br>and Sithers Austres<br>Madaling ays | Arfattsibute, Tuples, Relations D) Relationsships of afrayone Ones Definition, types of ares |  |
| Periods Allor                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |                                                              | Manone Manuensional, 4)Two                                                                   |  |
| Periods Avai                       | THE SECOND PROPERTY OF THE PRO |                         |                                                              | dimensional, Multidimensional                                                                |  |
| Teaching                           | Practical/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Tests                   |                                                              |                                                                                              |  |
|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1                       |                                                              |                                                                                              |  |
|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         | Ųnit − 2:                                                    | SQL 99:                                                                                      |  |
| Month: Nov                         | and the second second second                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                         | Entity Relationship                                          | ArSchema Definition,     Constraints domain Integrity                                        |  |
| Teaching Da                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         | and Enhanced ER                                              | Constraints domain Integrity,                                                                |  |
| Periods Allotted Periods Available |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Medicures and<br>Arrays | entito) Beforential, types of arra                           |                                                                                              |  |
|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Allays                  | dimensional, Multidimensiona                                 |                                                                                              |  |
| Teaching                           | Practical/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Tests                   |                                                              |                                                                                              |  |

Sign of the Teacher

Sign of the Head

PAC CO-ORDINATOR

Principal
Principal
Yashwantrao Chavan Mahavidyalaya
URUN-ISLAMPUR, (Dist. Sang

Teachers Name: Pudale Pratibha Dilip

Subject : Computer Science

Class

: B. Sc. Part I (Sem II)

Paper No: IV

Paper Title: Relation Database management system (DSC-12B)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |           | Topic /Unit                             | Sub-units Planned                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| Month: Dec        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |           | nit – 1; -                              | Basic concept Relation Constraints: No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Teaching Day      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | 11.000000 | elational Data                          | Null , Unique Primary , Foreign , Check                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Periods Allott    | ed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | M         | odel                                    | ,Relational algebra , Select , Project                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Periods Availa    | eriods Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |           |                                         | ,Union , Intersection, Difference ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Teaching          | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests          |           |                                         | SQL Queries: Creat Alter, Drop<br>DML: insert update, delete,<br>DQL: Select                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Month: Jan        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | Llı       | nit – 1: -                              | SOL Operator : Logical relational in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Teaching Day      | S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                | -         | elational Data                          | SQL Operator : Logical relational in, between like, not, is null,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Periods Allott    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | 1.7       | odel                                    | SQL Clauses: Where Qoder by group,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Periods Availa    | 20050                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |           |                                         | group by , Having                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| r Orlous Avail    | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests          |           |                                         | Aggigate Function: SUM, MIN, MAX, Count, AVG.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |           | nit – 2:                                | Entity Relationship ER: Basic Structure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Month :Feb        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | ע         | atabase Design                          | of entity Relationship (ER), Symbols,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Teaching Da       | *                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |           | Control                                 | Construction of FR Diagram Example:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Periods Allo      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | St 83     | Structures and<br>Arrays                | Library Management System FER To relational management in the library of Two extended entity Relationship Diagram                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Periods Ava       | The same of the sa |                | 31 S.     | Arrays                                  | extended entity Relationship Diagram                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Teaching          | Practical/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Tests          |           |                                         | (EER)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |           | nit – 2:                                | Specialization Generalization,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Month :mar        | ch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | D         | nterhase Design                         | Aggregation , Function Depencies :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Teaching Da       | ıys                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |           | Control                                 | Key, Pringary earners, or perakey,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Periods Allotted  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Structures and |           | candidate 249 Definition, types of arra |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Periods Available |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |           | Arrays                                  | Decomposition afformation of the NF, Second eligible of the NF, Second elig |
| Teaching          | Practical/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Tests          |           |                                         | Third NF (3NF)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

Sign of the Teacher

Sign of the Head

Sign of the Principal

Principal

Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang.

\*\*QAC CO-ORDINATOR \*\*\* C. COLLEGE, ISLAMPUM

Teachers Name : Jagatap Nilesh Ramesh

Subject : Computer Science

Paper No: DSC-11C

Class : B. Sc. Part II (Sem III)

Paper Title: PHP and MySQL

|               |                          | C. 27 DOCK OF UND DOCK OFF VISION CO. CO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Topic /Unit                               | Sub-units Planned                                                                                                                    |  |  |
|---------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Month: July   | /                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit – 1: - Introduction to PHP Scripting | Introduction,                                                                                                                        |  |  |
| Teaching Days |                          | A STATE OF THE STA |                                           | Evaluation, Features,                                                                                                                |  |  |
| Periods Allo  | tted                     | 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                           | PHP Script(PHP tags                                                                                                                  |  |  |
| Periods Avai  | lable                    | •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                           | php ? , SGML-style                                                                                                                   |  |  |
| Teaching      | Practicals/<br>Tutorials | Tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                           | tags ? ,ASP style <% %>, • HTML Script Tag • Variables: • Scope • Functions • Constant: define() • Operators • Precedence Strings:   |  |  |
| Month: Aug    |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                           | Decision Making                                                                                                                      |  |  |
| Teaching Da   | *                        | 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                           | Statements:                                                                                                                          |  |  |
| Periods Allor | tted                     | 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                           | Iterative Statements:                                                                                                                |  |  |
| Periods Avai  | lable                    | -11200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 8                                         | continue statement                                                                                                                   |  |  |
| Teaching      | Practicals/<br>Tutorials | Tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                           | <ul> <li>Exit statements:</li> <li>User Defined Functions:</li> <li>variables, Dynamic<br/>Function call</li> <li>Arrays:</li> </ul> |  |  |
| Month: Sept   | tember                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit – II: HTML, HTML                     | Introduction: HTML,                                                                                                                  |  |  |
| Teaching Da   | ys                       | 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | forms and MySql                           | necessary tags to design                                                                                                             |  |  |
| Periods Allor | tted                     | 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | connectivity                              | form layout.                                                                                                                         |  |  |
| Periods Avai  | lable                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                           | Forms: HTML forms,                                                                                                                   |  |  |
| Teaching      | Practicals/<br>Tutorials | Tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                           | action and get & post<br>methods. PHP super<br>global variables<br>(\$_PHP_SELF,<br>• \$_GET, \$_POST,                               |  |  |
| Month: Octo   | ober                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                           | MySql Database(Old or                                                                                                                |  |  |
| Teaching Da   | ys                       | 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                           | Improved):                                                                                                                           |  |  |
| Periods Allot | Periods Allotted 12      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                           | • cursor                                                                                                                             |  |  |
| Periods Avai  | lable                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                           |                                                                                                                                      |  |  |
| Teaching      | Practicals/<br>Tutorials | Tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                           |                                                                                                                                      |  |  |

Sign of the Teacher

Sign of the Head

licht, Blumpur.

Sign of the Principal Principal

Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist



Subject : Chemistry

Class

: B.Sc Part - II (Sem - III)

Paper No: V & VI

Paper Title: Physical Chemistry

## **Analytical Chemistry**

|                   |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Topic /Unit                                                                  | Sub-units Planned                                                                                                |
|-------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Month: June       | e                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                              |                                                                                                                  |
| Teaching Day      | ys                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                              |                                                                                                                  |
| Periods Allot     | ted                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                              |                                                                                                                  |
| Periods Avai      | lable                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                              |                                                                                                                  |
| Teaching          | Practicals/<br>Tutorials | Tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                              |                                                                                                                  |
| Month: July       |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3. Surface Chemistry                                                         | Factors affecting                                                                                                |
| Teaching Day      |                          | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                              | absorption, Absorption                                                                                           |
| Periods Allot     | -                        | 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                              | Isotherms - Freundlich,                                                                                          |
| Periods Avai      | lable                    | 7-06-55                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                              | Langmuir Adsorption                                                                                              |
| Teaching          | Practicals/<br>Tutorials | Tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                              | Isotherms, Types of physical absorption Isotherms, applications                                                  |
|                   |                          | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                              |                                                                                                                  |
| Month: Aug        | ust                      | J. Committee of the com | 1. Basic Concepts in Industrial Chemistry                                    | Raw material for chemical industry, Unit operation & Unit processes, Flow & block diagram, Process flow diagram, |
| Teaching Da       |                          | 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                              |                                                                                                                  |
| Periods Allot     | tted                     | 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                              |                                                                                                                  |
| Periods Avai      | lable                    | <u> </u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                              |                                                                                                                  |
| Teaching          | Practicals/<br>Tutorials | Tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                              |                                                                                                                  |
| Month: Sep        | tember                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1. Basic Concepts in                                                         | Material balances -                                                                                              |
| Teaching Da       |                          | 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Industrial Chemistry                                                         | claculation, equation,                                                                                           |
| Periods Allo      |                          | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                              | procedure, example                                                                                               |
| Periods Avai      | lable                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                              | Definition & explanation o                                                                                       |
| Teaching          | Practicals/<br>Tutorials | Tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                              | terms, Problems                                                                                                  |
|                   |                          | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                              |                                                                                                                  |
| Month: Oct        | ober                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                              | Manufacturing of pulp,                                                                                           |
| Teaching Da       |                          | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                              | Types of pulp,                                                                                                   |
| Periods Allo      |                          | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4. Paper Industry                                                            | Manufacturing of paper,                                                                                          |
| Periods Available |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Ecological problems of Indian Paper industry Features of good Paper Industry |                                                                                                                  |
| Teaching          | Practicals/<br>Tutorials | Tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                              | Industry .                                                                                                       |

| 20 |   |                     | 2.Organic qualitative analysis                                                                |
|----|---|---------------------|-----------------------------------------------------------------------------------------------|
|    |   | Organic Chemistry   | Identification of organic compound- Alpha-naphthol, methyl acetate, urea, ethyl methyl ketone |
|    |   | Inorganic Chemistry | Preparation of sodium cuprous thiosulphate                                                    |
| 5  | 1 |                     |                                                                                               |

Sign of the Head

IQAC CO-ORDINATOR Y. C. COLLEGE, ISLAMPUR Sign of the Principal

Yashwantrao Chaves Unbeutdyalays
URUN-ISLAMATUR, MISE Sang

Teachers Name: Mrs. Neha N. Sali

Subject : Mathematics

Paper No: DSC-5C

Class

: B. Sc. Part II (SemI)

Paper Title: RealAnalysis-I

|               |                          |       | Topic /Unit                                                                        | Sub-units Planned                                                                           |
|---------------|--------------------------|-------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Month: July   |                          |       | Unit1:Functions                                                                    | 1.1.Sets.                                                                                   |
| Teaching Day  | ys                       | 10    | and Countable sets                                                                 | 1.2.Functions                                                                               |
| Periods Allot | ted                      | 10    | CCPM II- Range of                                                                  |                                                                                             |
| Periods Avai  | lable                    |       | functions                                                                          |                                                                                             |
| Teaching      | Practicals/<br>Tutorials | Tests |                                                                                    |                                                                                             |
| 10            | 01                       |       |                                                                                    |                                                                                             |
| Month: Aug    | ust                      |       | Unit1:Functions                                                                    | Mathematical Induction                                                                      |
| Teaching Da   | ys                       | 11    | and Countable sets                                                                 | CountableSets                                                                               |
| Periods Allot | tted                     | 10    | CCPM II-                                                                           |                                                                                             |
| Periods Avai  | lable                    |       | Mathematical                                                                       |                                                                                             |
| Teaching      | Practicals/<br>Tutorials | Tests | Induction CCPM II- Types of function                                               |                                                                                             |
| 11            | 02                       |       |                                                                                    |                                                                                             |
| Month: Sep    | tember                   | 4     | Unit2:The Real numbers CCPM III- Introduction to SCILAB CCPM III- Matrix in SCILAB | Algebraic and Order Properties of realnumbers Inequalities Absolute Value and neighbourhood |
| Teaching Da   | ys                       | 12    |                                                                                    |                                                                                             |
| Periods Allo  | tted                     | 10    |                                                                                    |                                                                                             |
| Periods Avai  | lable                    |       |                                                                                    |                                                                                             |
| Teaching      | Practicals/<br>Tutorials | Tests |                                                                                    |                                                                                             |
| 12            | 02                       |       |                                                                                    |                                                                                             |
| Month: Oct    | ober                     |       | Unit2:The Real numbers                                                             | Completeness property of realnumbers Intervals                                              |
| Teaching Da   | ıys                      | 10    | CCPM III- Creating Polynomials in SCILAB                                           |                                                                                             |
| Periods Allo  | tted                     | 10    |                                                                                    |                                                                                             |
| Periods Ava   | Periods Available        |       | CCPM III- Plotting graph                                                           |                                                                                             |
| Teaching      | Practicals/<br>Tutorials | Tests | in SCILAB                                                                          |                                                                                             |
| 10            | 02                       |       |                                                                                    |                                                                                             |

Sign of the Teacher

Sign of the Head

IQAC CO-ORDINATOR
Y. C. COLLEGE, ISLAMPUR

C. COLLEGE SEATOR

Sign of the Principal Principal

Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang

Teachers Name: Miss. Jadhav Megharani Chandrakant

Subject : Mathematics

Paper No:VI

Class

: B. Sc. Part II

Paper Title: Algebra-I

|                                                                                                         |                          |       | Topic /Unit                                                          | Sub-units Planned                                                                                                                                                                                                                                                                         |  |
|---------------------------------------------------------------------------------------------------------|--------------------------|-------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Month: July Teaching Days 11 Periods Allotted 11 Periods Available  Teaching Practicals Tutorials Tests |                          | 11    | Unit1: Matrices and Relations CCPM-II:- Eigen Values & Eigen Vectors | <ul> <li>Revision on Matrices</li> <li>Hermitian and Skew<br/>Hermitian matrices.</li> <li>Rank of a matrix, Row-<br/>echelon form</li> <li>System of equations</li> <li>Gaussian elimination and<br/>Gauss Jordon method</li> <li>Eigen values, Eigen vectors<br/>of a matrix</li> </ul> |  |
| 11                                                                                                      | 01                       |       |                                                                      |                                                                                                                                                                                                                                                                                           |  |
| Month: Au                                                                                               | gust                     |       |                                                                      | Cayley Hamilton theorem.                                                                                                                                                                                                                                                                  |  |
| Teaching D                                                                                              | ays                      | 11    |                                                                      | Relations:                                                                                                                                                                                                                                                                                |  |
| Periods All                                                                                             | otted                    | 10    | CCPM-II:- Cayley                                                     | <ul> <li>equivalence relations and</li> </ul>                                                                                                                                                                                                                                             |  |
| Periods Av                                                                                              | ailable                  | ,     | Hamilton Theorem                                                     | Partial ordering relations.                                                                                                                                                                                                                                                               |  |
| Teaching                                                                                                | Practicals/<br>Tutorials | Tests | CCPM-III:- Accessing<br>Elements of matrix                           | <ul> <li>Digraphs of relations, matrix<br/>representation. Composition of<br/>relations. Transitive closure,<br/>Warshall's algorithm<br/>Equivalence classes, Partition</li> </ul>                                                                                                       |  |
| 11                                                                                                      | 02                       |       |                                                                      |                                                                                                                                                                                                                                                                                           |  |
| Month: Se                                                                                               | ptember                  | W.    | Unit2: Groups                                                        | Definition of Binary                                                                                                                                                                                                                                                                      |  |
| Teaching D                                                                                              | ays                      | 10    | CCPM-II:- Examples                                                   | Operations, examples. Groups                                                                                                                                                                                                                                                              |  |
| Periods All                                                                                             | otted                    | 10    | on Group & order of an                                               | and its Properties.                                                                                                                                                                                                                                                                       |  |
| Periods Av                                                                                              | ailable                  |       | element                                                              | Quaternion group and Order of                                                                                                                                                                                                                                                             |  |
| Teaching                                                                                                | Practicals/<br>Tutorials | Tests | CCPM-III:- Sub-<br>Matrix                                            | <ul><li>the group</li><li>Normalizer &amp; Center of group G</li></ul>                                                                                                                                                                                                                    |  |
| 10                                                                                                      | 02                       | V-5   |                                                                      |                                                                                                                                                                                                                                                                                           |  |
| Month: Oc                                                                                               | ctober                   |       |                                                                      | Subgroups and theorems                                                                                                                                                                                                                                                                    |  |
| Teaching D                                                                                              | ays                      | 11    | CCDM II. Calling I                                                   | <ul> <li>Theorms</li> </ul>                                                                                                                                                                                                                                                               |  |
| Periods All                                                                                             | otted                    | 11    | CCPM-II:- Cyclic sub-                                                | <ul> <li>Cyclic Groups Theorem</li> </ul>                                                                                                                                                                                                                                                 |  |
| Periods Av                                                                                              | ailable                  |       | group                                                                | <ul> <li>Cosets and theorems on it</li> </ul>                                                                                                                                                                                                                                             |  |
| Teaching                                                                                                | Practicals/<br>Tutorials | Tests |                                                                      | • Revision                                                                                                                                                                                                                                                                                |  |
|                                                                                                         |                          |       |                                                                      |                                                                                                                                                                                                                                                                                           |  |

Sign of the Teacher

QAC CO-ORDINATOR

Yashwantrao Chavan Mahavidyalaya

## YASHWANTRAO CHAVAN COLLEGE, ISLAMPUR

#### ANNUAL TEACHING PLAN 2019-20

Subject : Chemistry

Class

: B.Sc Part - II (Sem - III)

Paper No: V

Paper Title : Physical Chemistry

|                                   |                          |       | Topic /Unit                                                         | Sub-units Planned                                                                                                                                                                                                                                                          |
|-----------------------------------|--------------------------|-------|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: June                       | e                        |       |                                                                     |                                                                                                                                                                                                                                                                            |
| Teaching Days                     |                          |       |                                                                     |                                                                                                                                                                                                                                                                            |
| Periods Allotted                  |                          |       |                                                                     |                                                                                                                                                                                                                                                                            |
| Periods Available                 |                          |       |                                                                     |                                                                                                                                                                                                                                                                            |
| Teaching                          | Practicals/<br>Tutorials | Tests |                                                                     |                                                                                                                                                                                                                                                                            |
| Month: July                       |                          |       |                                                                     | Types of conductors.                                                                                                                                                                                                                                                       |
| Teaching Da                       | ys                       | 16    | 1. Electrolytic                                                     | Explanation of terms                                                                                                                                                                                                                                                       |
| Periods Allot                     | tted                     | 14    | Conductivity                                                        | Measurement of                                                                                                                                                                                                                                                             |
| Periods Avai                      | lable                    |       |                                                                     | Conductance by                                                                                                                                                                                                                                                             |
| Teaching                          | Practicals/<br>Tutorials | Tests | 8                                                                   | Wheatstone bridge, Kohlrausch law applications, boundary method bridge, We it's Moving                                                                                                                                                                                     |
|                                   |                          | 1     |                                                                     | •                                                                                                                                                                                                                                                                          |
| Month: Aug                        | ust                      |       | 1. Electrolytic     Conductivity  2. Physical Properties of Liquids | Hittorf's rule, Transport number, Conductometric Titrations & advantages, Numerical Problems Determination of surface tension by stalagometric method, Determination of Viscosity by Ostwald Viscometer, R.I., Specific & molecular refractivities by Abbe's refractometer |
| Teaching Da                       | ys                       | 15    |                                                                     |                                                                                                                                                                                                                                                                            |
| Periods Allot                     | tted                     | 13    |                                                                     |                                                                                                                                                                                                                                                                            |
| Periods Avai                      | lable                    |       |                                                                     |                                                                                                                                                                                                                                                                            |
| Teaching                          | Practicals/<br>Tutorials | Tests |                                                                     |                                                                                                                                                                                                                                                                            |
|                                   |                          | 2     |                                                                     |                                                                                                                                                                                                                                                                            |
| Month: Sep                        | tember                   |       |                                                                     | Types of radiations,<br>Properties of alpha, beta,<br>gamma radiations, Geiger                                                                                                                                                                                             |
| Teaching Da                       | ys                       | 16    | 4. Nuclear Chemistry                                                |                                                                                                                                                                                                                                                                            |
| Periods Allot                     | tted                     | 14    |                                                                     |                                                                                                                                                                                                                                                                            |
| Periods Avai                      | lable                    |       |                                                                     | Muller method<br>Scintillation counter                                                                                                                                                                                                                                     |
| Teaching                          | Practicals/<br>Tutorials | Tests |                                                                     | Scintillation countermethod, Geiger-Nuttal relation                                                                                                                                                                                                                        |
| Month: October                    |                          |       | Third order reaction -                                              |                                                                                                                                                                                                                                                                            |
|                                   |                          | 14    | 5. Chemical Kinetics                                                | equation & characteristics                                                                                                                                                                                                                                                 |
| Teaching Days<br>Periods Allotted |                          |       | J. Chemical Kinetics                                                | Theories of reaction rate Collision theory,                                                                                                                                                                                                                                |

| Periods Ava | ilable         |       |                                        | Transition state theory                                                             |
|-------------|----------------|-------|----------------------------------------|-------------------------------------------------------------------------------------|
| Teaching    | Practicals/    |       | Organic Chemistry  Inorganic Chemistry | 2. Organic qualitative analysis Identification of organic compound- Salicylic acid, |
|             | Tutorials Test | Tests |                                        | o-nitrophenol, acetanilide  1. Preparation of sodium cuprous thiosulphate           |
|             | 4              | 1     |                                        | -                                                                                   |

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Sign of the Principal

IQAC CO-ORDENATOR Y. C. COLLEGE, ISLAWPUR Yashwantrao Chaven Michavidyalaya URUM-ISI Abiosification, Sung

Subject : Botany

Paper No: II

Class

: BSc Part II

Paper Title: Plant Physiology

|                                       |                          |       | Topic /Unit                                                                                                           | Sub-units Planned                                                                           |
|---------------------------------------|--------------------------|-------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Month: Jur                            | ie                       |       | -                                                                                                                     |                                                                                             |
| Teaching Days                         |                          |       |                                                                                                                       |                                                                                             |
| Periods Allo                          | Periods Allotted         |       |                                                                                                                       |                                                                                             |
| Periods Ava                           | ilable                   |       |                                                                                                                       |                                                                                             |
| Teaching                              | Practicals/<br>Tutorials | Tests |                                                                                                                       |                                                                                             |
| Month: Jul                            | y                        |       | La:Plant water relationship                                                                                           | 1.1:Introduction                                                                            |
| Teaching Da                           |                          | 08    |                                                                                                                       | 1.2:Water transport process                                                                 |
| Periods Allo                          | (1 V.(1-1)               | 08    |                                                                                                                       | 1.3:Transpiration                                                                           |
| Periods Ava                           |                          | 9.0   |                                                                                                                       | TIST TURISPITATION                                                                          |
| Teaching                              | Practicals/<br>Tutorials | Tests |                                                                                                                       |                                                                                             |
| 08                                    | 02                       |       | Study of structure of stomata Study of stomatal and cuticular transpiration                                           | Determination of stomata density. by cobalt chloride paper method.                          |
| Month: Aug                            | gust                     |       | 1.b: Mineral nutrition                                                                                                | 1.4: Introduction 1.5: Criteria of essentiality 1.6: Mineral nutrient uptake                |
| Teaching Da                           | ıys                      | 12    |                                                                                                                       |                                                                                             |
| Periods Allo                          | tted                     | 11    |                                                                                                                       |                                                                                             |
| Periods Ava                           | ilable                   |       |                                                                                                                       | 1.7:Role and Deficiency                                                                     |
| Teaching                              | Practicals/<br>Tutorials | Tests |                                                                                                                       | Disorders                                                                                   |
| 11                                    | 03                       | 01    | Study of role and deficiency symptoms Separation of photosynthetic pigments  Study of Kranz leaf anatomy in C4 plants | Phosphorus, Potassium, Calcuim, Magnesium Ascending paper chromatography  C4 plants - Maize |
| Month: Sep                            | tember                   |       | 2.a: Photosynthesis                                                                                                   | 2.1: Introduction                                                                           |
| Teaching Da                           |                          | 11    | 1 no.003/11tile313                                                                                                    | 2.2: Photosynthetic                                                                         |
|                                       | Periods Allotted         |       |                                                                                                                       | pigments-                                                                                   |
| Periods Allotted 11 Periods Available |                          |       | 2.3: Mechanism of                                                                                                     |                                                                                             |
| Teaching                              | Practicals/<br>Tutorials | Tests |                                                                                                                       | Photosynthesis 2.4: Significance of photosynthesis                                          |
| 11                                    | 02                       |       | Detection by biochemical tests.                                                                                       | Calcium, Phosphate. Potassium and Iron inplants                                             |

| Month: October    |                          |       | 2.b: Growth and                                                                                                          | 2.6:Introduction                                                                                   |
|-------------------|--------------------------|-------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Teaching Da       | ays                      | 12    | Development                                                                                                              | 2.7: Plant growth                                                                                  |
| Periods Allo      | otted                    | 12    |                                                                                                                          | regulators                                                                                         |
| Periods Available |                          |       | -                                                                                                                        | 2.8: Plant responses to                                                                            |
| Teaching          | Practicals/<br>Tutorials | Tests |                                                                                                                          | light and temperature 2.9: Vernalization                                                           |
| 12                | 03                       | 01    | Estimation of TAN value in CAM plants. Analysis of vegetative growth Effect of different concentrations seed germination | TAN value at morning TAN value at evening Leaf area method Height of plants Auxin, Gibberelic acid |

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IQAC CO-GEDERATOR
Y. C. COLLEGE, ISLAMPUR

Yashwantrao Chavan Mahawdyalaya URUN-ISLAMBURI (1981-1989)

Teachers Name: Vibhute M. V.

Subject : Botany

Paper No: I

Class: BSC. Part II (Sem III)

Paper Title: Plant Anatomy

|                     |                          |                            | Topic /Unit                                                                                                | Sub-units Planned                                                                                             |
|---------------------|--------------------------|----------------------------|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Month: Nov          |                          |                            | 1.a:Organization of higher                                                                                 |                                                                                                               |
| Teaching Days 10    |                          | 10                         | plant body                                                                                                 |                                                                                                               |
| Periods Allotted 7  |                          |                            |                                                                                                            |                                                                                                               |
| Periods Ava         | ilable                   | 10.                        |                                                                                                            |                                                                                                               |
| Teaching            | Practicals/<br>Tutorials | Tests                      |                                                                                                            |                                                                                                               |
| 07                  | 02                       |                            | Study of periderm and lenticels slides Double stained permanent micro preparation                          | Phellogen or Cork<br>Cambium, Phellem or Cork,<br>Phelloderm.<br>Bignonia, Dracaena,<br>Sunflower, Parthenium |
| Month: Dec          | ember                    |                            | 1.b: Meristematic Tissue                                                                                   | a) Introduction,                                                                                              |
| Teaching Days 12    |                          |                            | Characteristics and                                                                                        |                                                                                                               |
| Periods Allotted    |                          | 11                         |                                                                                                            | Classification                                                                                                |
| Periods Available   |                          |                            | b) Theories of structural                                                                                  |                                                                                                               |
| Teaching            | Practicals/<br>Tutorials | Tests                      |                                                                                                            | development                                                                                                   |
| 11                  | 03                       | 01                         | Study of shoot and root apex by permanent slides. Study of simple tissues. Study of complex tissues.       | L. S. Of Shoot Apex L. S. Of root Apex Parenchyma, Collenchyma, Sclerenchyma.                                 |
| Month: Jan          | uary                     |                            | 1.b: Permanent Tissue                                                                                      | i) Simple tissue-                                                                                             |
| Teaching Da         | ıys                      | 11                         |                                                                                                            | ii) Complex tissue:                                                                                           |
| Periods Allo        | tted                     | 11                         |                                                                                                            | 1.6: Types of Vascular<br>bundles                                                                             |
| Periods Ava         | ilable                   | 500                        |                                                                                                            |                                                                                                               |
| Teaching            | Practicals/<br>Tutorials | Tests                      |                                                                                                            |                                                                                                               |
| 11                  | 04                       | 01                         | Study of complex tissues.  Demonstration fermentation.  Study of biofertilizers. Separation of Amino acids | Xylem, Phloem kuhne's<br>Fermentation tube metod<br>Rhizobium, Trichoderma<br>Thin Layer Chromatograghy       |
| Month: February     |                          | 2.a: Primary and secondary | 2.1: Primary structure of                                                                                  |                                                                                                               |
| Teaching Da         | - W. C C.                | 12                         | structure of plant body                                                                                    | Monocotyledon                                                                                                 |
| Periods Allotted 11 |                          |                            | andDicotyledon                                                                                             |                                                                                                               |
| Periods Avai        | lable                    |                            |                                                                                                            | 2.2: Normal secondary                                                                                         |
| Teaching            | Practicals/<br>Tutorials | Tests                      |                                                                                                            | growth 2.3: Anomalous secondary growth                                                                        |

| _            |                          |                     |                                                                                                           | 2.4 : Periderm and Lenticel                                                                          |
|--------------|--------------------------|---------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| 11           | 02                       |                     | Study of primary structure of dicot and monocot root Study of primary structure of dicot and monocot stem | T. S. Of dicotyledon root T.S. Of monocotyledon root T. S. Of dicotyledon stem T. S. Of monocot stem |
| Month: March |                          | 2.b: Tissue systems | 2.5 : Epidermal tissue                                                                                    |                                                                                                      |
| Teaching Da  | ays                      | 10                  |                                                                                                           | system 2.6: Secretary tissue<br>system 2.7:Mechanical<br>tissue system                               |
| Periods Allo | otted                    | 10                  |                                                                                                           |                                                                                                      |
| Periods Ava  | ilable                   |                     |                                                                                                           |                                                                                                      |
| Teaching     | Practicals/<br>Tutorials | Tests               |                                                                                                           |                                                                                                      |
| 10           | 03                       | 01                  | Study of normal<br>secondary growth in<br>dicotstem<br>anomalous/abnormal<br>Dracaena                     | Annona, Moringa,<br>Sunflower  Bignonia (Dicot Stem) Dracaena (Monocot Stem)                         |

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TOAC CO-OFFINE STORY
Y. C. COLLEGE, DESCRIPTION

Sign of the Finding Yashwantrao Chavan Mahandhala

URUN-ISLAMPUR, (Distributing

2019-20

Teachers Name: Kadam G. B.

Subject : Botany

Paper No: I

Class: BSC. Part II (Sem III)

Paper Title: Embryology Of Angiosperms

|              | As a contract with the contract of the contrac |       | Topic /Unit                                                                                                               | Sub-units Planned                                                                                                   |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Month: Jun   | e                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                                                                                                                           |                                                                                                                     |
| Teaching Da  | ys                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |       |                                                                                                                           |                                                                                                                     |
| Periods Allo | tted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |       |                                                                                                                           |                                                                                                                     |
| Periods Avai | lable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       |                                                                                                                           |                                                                                                                     |
| Teaching     | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests |                                                                                                                           |                                                                                                                     |
| Month: July  | <i>I</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |       | 1.a: Organization of                                                                                                      | 1.1: structure of flower.                                                                                           |
| Teaching Da  | .ys                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 08    | flower                                                                                                                    | 1.2: Structure of typical                                                                                           |
| Periods Allo | tted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 08    |                                                                                                                           | androecium and poller                                                                                               |
| Periods Avai | ilable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 378.2 |                                                                                                                           | grain.                                                                                                              |
| Teaching     | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests |                                                                                                                           | 1.3:Structure of gynoecium,<br>Structure Types of ovules                                                            |
| 08           | 03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |       | Study of Epidermal  Mechanical Secretary tissue system.                                                                   | Epidermis, Stomata<br>Epidermal outgrowth<br>Collenchyma Xylem<br>Glandular tissue,                                 |
| Month: Aug   | gust                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |       | 1.b: Pollination and Fertilization                                                                                        | 1.4: Definition, Types and mechanism of pollination 1.5:Microsporogensis 1.6:Megasporogenesis                       |
| Teaching Da  | ıys                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 12    |                                                                                                                           |                                                                                                                     |
| Periods Allo | tted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 11    |                                                                                                                           |                                                                                                                     |
| Periods Avai | ilable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |       |                                                                                                                           |                                                                                                                     |
| Teaching     | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests |                                                                                                                           | 1.7: Fertilization                                                                                                  |
| 11           | 03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |       | Study of following anatomical peculiarities  Study excretory products.  Janus green B staining technique for mitochondria | arenchyma, sunker stomata, multiple epidermis, stellate hairs glandularhairs, nectories, Peeling of Onion Cataphyll |
| Month: Sep   | tember                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |       | 2.a: Embryo and                                                                                                           | 2.1:Structure and                                                                                                   |
| Teaching Da  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 12    | Endosperm Development                                                                                                     | development of embryo in                                                                                            |
| Periods Allo |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 12    |                                                                                                                           | •                                                                                                                   |
| Periods Ava  | ilable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |       |                                                                                                                           | Monocotyledons.                                                                                                     |
| Teaching     | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests |                                                                                                                           | Dicotyledons.  2.3 Development and types of endosperm                                                               |
| 12           | 04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 01    | Determination of rate of respiration  Breaking of seed dormancy Study of effect                                           | During seed germination by Ganong's respirometer.  Mechanical and chemica                                           |

|                   |                          |       | of pH temperature .                                                    | scarification                                                       |  |
|-------------------|--------------------------|-------|------------------------------------------------------------------------|---------------------------------------------------------------------|--|
| Month: October    |                          |       |                                                                        | 2.4:Polyembryony<br>2.5Apomixis:                                    |  |
| Teaching Da       | ays                      | 11    | 2.b:Polyembryony and Apomixis                                          | 2.57 (politizis.                                                    |  |
| Periods Allo      | otted                    | 10    |                                                                        |                                                                     |  |
| Periods Available |                          |       |                                                                        |                                                                     |  |
| Teaching          | Practicals/<br>Tutorials | Tests |                                                                        |                                                                     |  |
| 10                | 02                       |       | Study of anatomy of porous and non porous wood.  Maceration technique. | Porous ,Non porous wood<br>Pinus, Thuja, Annona,<br>Sunflower stem. |  |

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Sign of the Teacher

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IQAC CO-ORDINATION Y. C. COLLEGE, ISLANDALIA

Sign of the Principal **Principal** 

Yashwantrao Chavan Mek

Lindwidth

Subject : Chemistry

Class: B.Sc Part - II (Sem - III)

Paper No: VI

Paper Title: Industrial Chemistry

| aper No. vi     |                          |                         | Paper Title : Industrial Chemistry |                                                                                         |  |
|-----------------|--------------------------|-------------------------|------------------------------------|-----------------------------------------------------------------------------------------|--|
|                 |                          |                         | Topic /Unit                        | Sub-units Planned                                                                       |  |
| Month: Ju       | ne                       |                         |                                    |                                                                                         |  |
| Teaching D      | )ays                     |                         |                                    |                                                                                         |  |
| Periods All     | otted                    | 7.75                    |                                    |                                                                                         |  |
| Periods Av      | ailable                  |                         |                                    |                                                                                         |  |
| Teaching        | Practicals/<br>Tutorials | Tests                   |                                    |                                                                                         |  |
| Month: Ju       | ly                       |                         | 2. Unit Operations                 | Size reduction, Size                                                                    |  |
| Teaching I      | 2.30                     | 8                       |                                    | enlargement, Distillation                                                               |  |
| Periods All     | otted                    | 6                       |                                    |                                                                                         |  |
| Periods Av      | ailable                  |                         |                                    |                                                                                         |  |
| Teaching        | Practicals/<br>Tutorials | Tests                   |                                    |                                                                                         |  |
| 8               |                          |                         |                                    |                                                                                         |  |
| Month: Ar       | igust                    | l.                      | 2. Unit Operations                 | Types of columns and                                                                    |  |
| Teaching E      | Days                     | 7                       | 3. Corrosion and Electroplating    | packing, Condensers.  Electrochemical theory of corrosion, factors affecting corrosion. |  |
| Periods Atl     | offed                    | 9                       |                                    |                                                                                         |  |
| Periods Av      | ailable                  | Warren San Land Company |                                    | Methods of protection of metals from corrosion.                                         |  |
| Teaching        | Practicals/<br>Tutorials | Tests                   |                                    | metals from corrosion.                                                                  |  |
| 7               |                          |                         |                                    |                                                                                         |  |
| Month: Se       | Month: September         |                         | 3. Corrosion and                   | Electrolysis, Faraday's                                                                 |  |
| Teaching Days 7 |                          | 7                       | Electroplating                     | laws, Cathode current efficiency, basic                                                 |  |
| Periods All     | otted                    | 9                       |                                    | principles of electroplating,                                                           |  |
| Periods Av      | ailable                  |                         |                                    | electroplating of chromium, Anodizing.                                                  |  |

| Teaching    | Practicals/<br>Tutorials | Tests |                        | Soap, raw materials for soaps.                                                                                  |
|-------------|--------------------------|-------|------------------------|-----------------------------------------------------------------------------------------------------------------|
|             |                          |       | 5. Soap and detergents |                                                                                                                 |
| 7           |                          |       |                        |                                                                                                                 |
| Month: Oc   | tober                    |       | 5. Soap and detergents | Types of soaps,                                                                                                 |
| Teaching D  | ays                      | 6     |                        | Manufacture of soap,<br>Detergent or syndets, raw                                                               |
| Periods All | Periods Allotted         |       |                        | material and types of<br>detergents, comparison<br>between soaps and<br>Detergents                              |
| Periods Av  | Periods Available        |       |                        |                                                                                                                 |
| Teaching    | Practicals/<br>Tutorials | Tests | Organic Chemistry      | 1.Organic qualitative analysis identification of organic compound - Salicylic acid, o-nitrophenol, acetanilide. |
|             |                          |       | Inorganic Chemistry    | 1. Preparation of sodium cupurous thiosulphate                                                                  |
| 3           | 03                       |       |                        |                                                                                                                 |

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Sign of the Principal

IQAC CO-ORE HISTORY
V. C. COTLEGE, ISLAMPUR

Yashwantrao Chaven Moss envelaya URUN-ISI Jakan bilit, tende alang

2019-20

Subject : physics

Paper No: VIII

Class

: B.Sc Part - II (Sem - IV

Paper Title: Waves and Optics

|                   |                          |                       | Topic /Unix                                                              | Sub-units Planned                                                                                                                                               |
|-------------------|--------------------------|-----------------------|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Months Nov        | ember                    |                       |                                                                          |                                                                                                                                                                 |
| Lencking Days 4   |                          | <b>4</b>              |                                                                          |                                                                                                                                                                 |
| eretionis Allot   | ted                      |                       |                                                                          |                                                                                                                                                                 |
| Feriods Avai      | lable                    | ta — west             |                                                                          | II.                                                                                                                                                             |
| feaching          | Practicals/<br>Tutorials | Tests                 |                                                                          |                                                                                                                                                                 |
| Month: Dec        | l<br>ember               |                       | Unit III                                                                 | Idea of polarization by                                                                                                                                         |
| freaching Da      | V 4                      | 8                     | Topic 3: polarization of                                                 | double refaction, Huygens                                                                                                                                       |
| Fariods Allei     | tted                     | 6                     | light                                                                    | explanation of double                                                                                                                                           |
| Feerads Avail     | lable                    |                       | 12.Resolving power of                                                    | refraction through uniaxial                                                                                                                                     |
| Teaching          | Practicals/<br>Tutorials | Tests                 | prism 13.R.P.Of grating 14.Polarimeter                                   | crystals, Nicol prism                                                                                                                                           |
|                   | 7                        |                       |                                                                          |                                                                                                                                                                 |
| hion (brain):     | uary                     |                       | Unit III Topic 3: polarization of light 15.Goniometer I 16.Goniometer II | Production and detection of<br>Circullarly and elliptically<br>polarised light<br>Optical rotation - Laws of<br>motion of plane of<br>polarization, Polarimeter |
| Leaching De       | ys <u> </u>              | 6                     |                                                                          |                                                                                                                                                                 |
| Pariods Allo      | Hed                      | 6                     |                                                                          |                                                                                                                                                                 |
| Forlods Avai      | ilable                   | -W-1000-1-12-XX       |                                                                          |                                                                                                                                                                 |
| fembing           | Practicals/<br>Tutorials | Tests                 | 17. Kundts tube                                                          |                                                                                                                                                                 |
| × ,               |                          |                       |                                                                          |                                                                                                                                                                 |
| Ironfa: Fob       | reary                    |                       | Unit IV                                                                  | Franhouser diffraction                                                                                                                                          |
| Teaching Da       | lys                      | 3                     | Topic 2: Diffraction                                                     | Elementary theory of plan diffraction grating.                                                                                                                  |
| Pariods Allo      | eted                     | 8                     | 18. RTD                                                                  |                                                                                                                                                                 |
| Periods Ava       | iable                    | <u></u>               | 19.Joule-Kelvin experiment                                               |                                                                                                                                                                 |
| leaching          | Practicals/<br>Tutorials | Tests                 | 20. Stefan's fourth power law                                            |                                                                                                                                                                 |
| *n                | 1                        |                       |                                                                          |                                                                                                                                                                 |
| himin Ma          | reh                      | 1                     | Unit IV                                                                  | Determination o                                                                                                                                                 |
|                   |                          | 2                     | Topic 2: Diffraction                                                     | wavelength of light using                                                                                                                                       |
| Jorious Allomed   |                          | 8                     | 21. Resonating bottle                                                    | diffraction grating,                                                                                                                                            |
| Poriody Available |                          | 22. Lissajious figure | 2003 2003                                                                |                                                                                                                                                                 |
| Teaching          | Practicals/<br>Tutorials | Tests                 | SAME STATE                                                               | -                                                                                                                                                               |
|                   | 1                        |                       |                                                                          | 47015                                                                                                                                                           |

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V. C. COLLEGE, ISLANDFOR

Subject : Physics

Class

: B.Sc Part - II (Sem - IV)

Paper No: VIII

Paper Title: Waves And Optics II

|                     |                          |                         | Topic /Unit                                                     | Sub-units Planned                                      |
|---------------------|--------------------------|-------------------------|-----------------------------------------------------------------|--------------------------------------------------------|
| Month: Nove         | ember                    |                         |                                                                 |                                                        |
| Teaching Day        | Teaching Days            |                         |                                                                 |                                                        |
| Periods Allott      | ted                      |                         |                                                                 |                                                        |
| Periods Avail       | able                     |                         |                                                                 |                                                        |
| Teaching            | Practicals/<br>Tutorials | Tests                   |                                                                 |                                                        |
| Month: Dece         | ember                    |                         | 1. Resolving power of                                           | Resolution, resolving power                            |
| Teaching Day        | /S                       | 12                      | Optical instrument                                              | of optical ininstrument,                               |
| Periods Allot       | ted                      | 11                      |                                                                 | Rayleigh criteria, modify<br>Rayleigh criteria,        |
| Periods Avail       | able                     |                         |                                                                 | magnification & resolution,                            |
|                     | œ                        |                         |                                                                 | power of plane diffraction gretting r.p. of prism.     |
| Teaching            | Practicals/<br>Tutorials | Tests                   | 12) Resolving power of prism                                    |                                                        |
|                     |                          |                         | 13) R.P of grating                                              | 3                                                      |
|                     |                          |                         | 14) Polarimeter                                                 |                                                        |
|                     | 3                        |                         |                                                                 |                                                        |
| Month: Janu         | ıary                     |                         |                                                                 | Principle of superposition                             |
| Teaching Day        | ys                       | 13                      | 1. Interfere                                                    | coherence&condition,                                   |
| Periods Allot       | ted                      | 12                      |                                                                 | division of amplitude and<br>wave form, Llyodes single |
| Periods Avai        | lable                    |                         |                                                                 | mirrior, Newton's ring.                                |
|                     | ē.                       |                         | 15) Goniometer I                                                |                                                        |
| Teaching            | Practicals/<br>Tutorials | Tests                   | 16) Goniometer II                                               |                                                        |
|                     |                          |                         | 17) Kunds tube                                                  |                                                        |
|                     | 3                        |                         |                                                                 |                                                        |
| Month: February     |                          | 2. Interfere            | Applications, weigh shaped film, refractive                     |                                                        |
| Teaching Days 14    |                          | 3. Theory of radiations | index of light.  Concept of energy density black body radiation |                                                        |
| Periods Allotted 11 |                          |                         |                                                                 |                                                        |
| Periods Available   |                          |                         |                                                                 |                                                        |
| Teaching            | Practicals/<br>Tutorials | Tests                   | 18) RTD                                                         | ,                                                      |

|              |                  |       | 19) Joul kelvin experiment |                                           |
|--------------|------------------|-------|----------------------------|-------------------------------------------|
|              | 28               |       | 20) Stefen's 4th power law |                                           |
|              | 3                |       |                            |                                           |
| Month: Ma    | rch              |       |                            | Experimental black body                   |
| Teaching Da  | ıys              | 12    | 3 Theory of radiation      | radiation, derivation of                  |
| Periods Allo | Periods Allotted |       |                            | planks law.                               |
| Periods Ava  | ilable           | S     |                            | 21) Valanity of sound in sin              |
| Teaching     | Practicals/      |       | 21)Resonating bottle       | 21) Velocity of sound in air measured.    |
|              | Tutorials        | legts | 22) Lissajous figures      | 22) Using CRO study of Lissajous figures. |
|              | 2                |       |                            |                                           |

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ashwantrao Chawa Mehawdyal URUN-ISLAMENA, (Diel. Saac

Teachers Name : Jagatap Nilesh Ramesh

Subject : Computer Science

Paper No: DSC-11D

Class : B. Sc. Part II (Sem IV)
Paper Title : Cyber Security Essentials - I

MPUR "

| A WOOD TO SELECTION OF THE SECOND SEC |                          |                                         | Topic /Unit                                     | Sub-units Planned                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------------------------------|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Month: Nov                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ember                    |                                         | Unit – 1: - Information                         | Information Security                                                                                                                       |
| Teaching Days                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          | 14                                      | Security Management                             | Overview:                                                                                                                                  |
| Periods Allot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ted                      | 13                                      |                                                 | E-commerce Security,                                                                                                                       |
| Periods Avai                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | lable                    | in the second                           |                                                 | dimensions of E-                                                                                                                           |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Practicals/<br>Tutorials | Tests                                   |                                                 | <ul><li>commerce security,</li><li>protocols,Computer</li><li>Forensics,</li></ul>                                                         |
| Month: Dec                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ember                    |                                         |                                                 | Steganography, Security                                                                                                                    |
| Teaching Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ys                       | 13                                      |                                                 | Management-Overview                                                                                                                        |
| Periods Allot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ted                      | 13                                      |                                                 | of Security Management,                                                                                                                    |
| Periods Avai                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | lable                    |                                         | 1.                                              | Information Classification                                                                                                                 |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Practicals/<br>Tutorials | Tests                                   |                                                 | Process, Security Policy,<br>Risk Management,                                                                                              |
| Month: Janu                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | uary                     | W. 111 111 - 12                         |                                                 | Security Procedures and                                                                                                                    |
| Teaching Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ys                       | 12                                      |                                                 | Guidelines, Business                                                                                                                       |
| Periods Allot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ted                      | 11                                      | Recovery                                        | Continuity and Disaster                                                                                                                    |
| Periods Avai                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | lable                    | *************************************** |                                                 | Recovery, Ethics and Bespractices.                                                                                                         |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Practicals/<br>Tutorials | Tests                                   |                                                 |                                                                                                                                            |
| Month: Feb                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ruary                    |                                         | Unit – II: Network Security,                    | Wireless Network                                                                                                                           |
| Teaching Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ys                       | 15                                      | Access Controls , Cyber Security and Cyber Laws | Security-  Wi-FiSecurity, Risk of Using Unsecured Wi-Fi, Bluetooth and its  Access Controls: Overview of Authentication and Authorization, |
| Periods Allo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | tted                     | 14                                      |                                                 |                                                                                                                                            |
| Periods Avai                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | lable                    |                                         |                                                 |                                                                                                                                            |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Practicals/<br>Tutorials | Tests                                   |                                                 |                                                                                                                                            |
| Month: Mai                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                         |                                                 | Overview of Intrusion                                                                                                                      |
| Teaching Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 50000000                 | 12                                      |                                                 | Detection Systems.                                                                                                                         |
| Periods Allotted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          | 11                                      |                                                 | Cyber Security: Email                                                                                                                      |
| Periods Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                         | security: PGP and SMIME                         |                                                                                                                                            |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Practicals/<br>Tutorials | Tests                                   |                                                 | <ul> <li>Web Security</li> <li>Cyber Security Laws</li> <li>International Standards,<br/>Security Audit- Need,<br/>Importance</li> </ul>   |

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Subject : Chemistry

Class

: B.Sc Part - II (Sem - IV)

Paper No: VII & VIII

Paper Title: Inorganic Chemistry

**Organic Chemistry** 

|                               |                          |       | Topic /Unit         | Sub-units Planned                                                                                                                                                            |
|-------------------------------|--------------------------|-------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: Nove                   | ember                    |       |                     |                                                                                                                                                                              |
| Teaching Days                 |                          |       |                     |                                                                                                                                                                              |
| Periods Allot                 | Periods Allotted         |       |                     |                                                                                                                                                                              |
| Periods Avail                 | able                     | -1    |                     |                                                                                                                                                                              |
| Teaching                      | Practicals/<br>Tutorials | Tests |                     |                                                                                                                                                                              |
| Month: Dece                   | m hou                    |       | 2 Carbabudasta      | Classification of                                                                                                                                                            |
| CORON IN NO INC.              |                          | 12    | 3. Carbohydrates    | Classification of                                                                                                                                                            |
| Teaching Day<br>Periods Allot |                          | 12    |                     | carbohydrates, General properties of glucose &                                                                                                                               |
|                               | 30.000                   | 11    | -                   | fructose, Open chain                                                                                                                                                         |
| Periods Avail                 | able                     | 1     | -                   | structure, Muta rotation                                                                                                                                                     |
|                               | 25                       |       |                     | &anomers, Determination of configuration of glucose                                                                                                                          |
|                               |                          |       | Organic Chemistry   | 2.Organic qualitative analysis Identification of organic compound- Salicylic acid, o-nitrophenol, acetanilide, CCl <sub>4</sub>                                              |
| Teaching                      | Practicals/<br>Tutorials | Tests | Inorganic Chemistry | <ol> <li>Gravimetric estimation of iron</li> <li>Preparation of tris (ethylene diamine) nickel (II) thiosulphate.</li> <li>Titrimetric Analysis of Vinegar Sample</li> </ol> |
|                               |                          |       | Physical Chemistry  | 1. Viscosity- to determine the percentage composition of a given liquid mixture.                                                                                             |
|                               |                          |       |                     |                                                                                                                                                                              |

|                               |                          |          | C. COL                                    | i.                                                                                                                                                                                                                            |
|-------------------------------|--------------------------|----------|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                               |                          |          | SATURDAMP OF                              | 2. Refractometry- to determine the specific & molar refractions of                                                                                                                                                            |
| 3                             | 0                        | 1        |                                           | benzene, toluene & xylene.                                                                                                                                                                                                    |
| 200496 12 1200                | 9                        | <u> </u> | 3. Carbohydrates                          | Ring structure of glucose,                                                                                                                                                                                                    |
| Month: Janua<br>Teaching Days |                          | 11       | 5. Carbonyurates                          | Structure of disacharrides&                                                                                                                                                                                                   |
| Periods Allotte               |                          | 12       |                                           | poly sacharrides                                                                                                                                                                                                              |
| Periods Availa                | 379-2                    | 1.0      |                                           | Conformational Isomerism,                                                                                                                                                                                                     |
| Torrous Tivana                |                          |          | 4. Stereochemistry                        | Representation of<br>conformations of ethane by<br>Saw-Horse, Fischer,<br>Newmann's projection<br>formulae                                                                                                                    |
|                               |                          |          | Organic Chemistry                         | Preparation of phthalimide from phthalic unhydride     Estimation of Vitamin C                                                                                                                                                |
| Teaching                      | Practicals/<br>Tutorials | ecte     | Inorganic Chemistry                       | <ol> <li>Gravimetric estimation of barium</li> <li>Titrimetric Analysis-Hardness of water</li> <li>Titrimetric Analysis-Alkalinity of antacid tablet</li> </ol>                                                               |
|                               | ¥                        |          | Physical Chemistry                        | 1. Conductometry- to determine the normality of the given strong acid by titrating it against the strong alkali 2. Conductometry- to determine the normality of the given weak acid by titrating it against the strong alkali |
| 粉                             | 7                        | 1        |                                           |                                                                                                                                                                                                                               |
| Month: Febr                   | uary                     |          | 4. Stereochemistry                        | Conformations 8                                                                                                                                                                                                               |
| Teaching Day                  |                          | 10       |                                           | conformational analysis o ethane & n-butane by                                                                                                                                                                                |
| Periods Allotted 12           |                          |          | ethane & n-butane by Newmann's projection |                                                                                                                                                                                                                               |
| Periods Avail  Teaching       | able Practicals/         | Tests    |                                           | formulae with energy profile diagram, Baeyer' Strain Theory Conformations & stability of Cyclohexane                                                                                                                          |
|                               | Tutorials                | rests    | Inorganic Chemistry                       | 1. Titrimetric Analysis-<br>Analysis of commercia<br>sample (talcum powder)                                                                                                                                                   |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2                        |         | Organic Chemistry  Physical Chemistry         | <ol> <li>Preparation of p-nitro acetanilide from acetanilide</li> <li>Preparation of acetanilide from aniline</li> <li>Chemical Kinetics- to determine relative strength of acids</li> <li>Chemical Kinetics- to study the reaction between potassium persulphate &amp; potassium iodide. (Equal</li> </ol> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5                        | 1       |                                               | concentration)                                                                                                                                                                                                                                                                                              |
| Month: Marc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | les Sale                 | *       | E Inguagania Cami miana                       | Theoretical numeriales                                                                                                                                                                                                                                                                                      |
| The state of the s | 50%                      | 10      | 5. Inorganic Semi- micro Qualitative Analysis | Theoretical principles, Applications of solubility                                                                                                                                                                                                                                                          |
| Teaching Day                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          | (1000c) | Qualitative Alialysis                         |                                                                                                                                                                                                                                                                                                             |
| Periods Allott                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          | 11      |                                               |                                                                                                                                                                                                                                                                                                             |
| Periods Avail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Periods Available        |         |                                               | effect, Application of complex formation &                                                                                                                                                                                                                                                                  |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Practicals/<br>Tutorials | Tests   |                                               | complex formation & separation, Application of oxidation & reduction in separation, spot test analysis                                                                                                                                                                                                      |

Sign of the Head

IQAC CQ-OTEMPATOR

Yashwantrao Chavan Mahavidyalaya

Sign of the Principal

URUN ADLIANT UN, (Dist Sang

Teachers Name: Mrs. Neha N. Sali

Subject : Mathematics

Paper No: DSC-5D

Class

: B. Sc. Part II (SemII)

Paper Title: RealAnalysis-II

| â                 |                          |                       |                                                          |                                                    |
|-------------------|--------------------------|-----------------------|----------------------------------------------------------|----------------------------------------------------|
|                   |                          |                       | Topic /Unit                                              | Sub-units Planned                                  |
| Month: Dece       | ember                    |                       | real numbers  CCPM III- Introduction                     | Sequence and                                       |
| Teaching Day      | ys                       | 13                    |                                                          | subsequence                                        |
| Periods Allot     | ted                      | 10                    |                                                          | MonotoneSequences                                  |
| Periods Avail     | lable                    |                       | SCILAB Programming                                       |                                                    |
| Teaching          | Practicals/<br>Tutorials | Tests                 | methods to find roots of function                        |                                                    |
| 13                | 02                       |                       |                                                          |                                                    |
| Month: Janu       | ıary                     |                       | UNIT 1: Sequence of                                      | Operations on                                      |
| Teaching Day      | ys                       | 14                    | real numbers                                             | convergentsequences                                |
| Periods Allot     | ted                      | 10                    | CCPM II- Limit of a                                      | Limit Superior and Limit                           |
| Periods Avai      | lable                    |                       | sequence                                                 | Inferior ofSequences                               |
| Teaching          | Practicals/<br>Tutorials | Tests                 | CCPM III- Graph theory in SCILAB                         |                                                    |
| 14                | 02                       |                       |                                                          |                                                    |
| Month: Feb        | ruary                    |                       | UNIT 2: Infinite Series CCPM II- Convergence of sequence | Convergent and DivergentSeries Positive TermSeries |
| Teaching Da       | ys                       | 11                    |                                                          |                                                    |
| Periods Allot     | tted                     | 10                    |                                                          |                                                    |
| Periods Avai      | lable                    |                       | CCPM III- Characteristic                                 |                                                    |
| Teaching          | Practicals/<br>Tutorials | Tests                 | Polynomial                                               |                                                    |
| 11                | 02                       |                       |                                                          |                                                    |
| Month: Mar        | rch                      |                       | UNIT 2: Infinite Series                                  | Comparison Tests For                               |
| Teaching Da       | ys                       | 07                    | CCPM II- Comparison test                                 | ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )            |
| Periods Allo      | tted                     | 10                    | & Cauchy's root test                                     | AlternatingSeries                                  |
| Periods Available |                          | CCPM II- D'Alembert's | Absolute and                                             |                                                    |
| Teaching          | Practicals/<br>Tutorials | Tests                 | ratio test & Rabbi's test.                               | ConditionalConvergence                             |
| 07                | 02                       |                       |                                                          |                                                    |

Sign of the Teacher

Sign of the Head

IQAC CO-ORDINATOR

ign of the Head

Sign of the Principal **Principal** 

Yashwantrao Chaven Mahavidyataya URUN-ISLAMPUR, (Dist. Sang



Subject : Chemistry

Class

: B.Sc Part - II ( Sem - IV)

Paper No: VII

Paper Title: Inorganic Chemistry

|                     |                          |       | Topic /Unit         | Sub-units Planned                                                                                                                    |
|---------------------|--------------------------|-------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Month: Nove         | ember                    |       |                     |                                                                                                                                      |
| Teaching Days       |                          |       |                     | 6                                                                                                                                    |
| Periods Allotted    |                          |       |                     |                                                                                                                                      |
| Periods Available   |                          |       |                     |                                                                                                                                      |
| Teaching            | Practicals/<br>Tutorials | Tests |                     |                                                                                                                                      |
| Month: Dece         | ember                    |       | 1. Coordination     | Definition & formation of                                                                                                            |
| Teaching Day        |                          | 13    | Chemistry           | coordinate covalent bond,                                                                                                            |
| Periods Allot       |                          | 13    | - Chemistry         | Werner's Coordination                                                                                                                |
| Periods Avai        |                          | 13    | 7                   | Theory with example,                                                                                                                 |
| Teaching Practicals |                          | 23    |                     | Description of short terms, IUPAC Nomenclature, Isomerism in C.N 4 & 6 complexes                                                     |
|                     |                          |       | Organic Chemistry   | 2.Organic qualitative analysis Identification of organic compound- Methyl acetate, urea, CCl4, ethyl methyl ketone                   |
|                     | Practicals/<br>Tutorials | Acte  | Inorganic Chemistry | <ol> <li>Preparation of tris (ethylene diamine) nickel (II) thiosulphate.</li> <li>Titrimetric Analysis of Vinegar Sample</li> </ol> |
|                     |                          |       | Physical Chemistry  | 1. Viscosity - to determine the percentage composition of a given liquid mixture.                                                    |
|                     |                          |       |                     | 2. Refractometry - to determine the specific & molar refractions of benzene, toluene & xylene.                                       |
|                     | 8                        |       |                     |                                                                                                                                      |

|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       | /\S\G_\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                  |
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| Months Tow                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       | 1. Coordination Chemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | VBT of transition metal                                                                                                          |
| Month: Jan Teaching Da                            | (r)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 16    | 2 Chalasian                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | complexes                                                                                                                        |
| Periods Allo                                      | *                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 15    | 2. Chelation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Structural requirements of chelate formation,                                                                                    |
|                                                   | Periods Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       | ======================================                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Difference between metal                                                                                                         |
|                                                   | liable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |       | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | chelate & metal complex,<br>Classification of chelating<br>ligands, Applications of<br>chelation with chelating<br>agents        |
|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       | Organic Chemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1. Estimation of Vitamin C                                                                                                       |
|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       | Difference between nothelate & metal comparison Classification of chelatigands, Applications chelation with chelatagents  Organic Chemistry  Inorganic Chemi | 2. Gravimetric estimation of                                                                                                     |
| Teaching                                          | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3. Titrimetric Analysis -                                                                                                        |
|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       | Physical Chemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | determine the normality of<br>the given strong acid by<br>titrating it against the strong<br>alkali                              |
|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | determine the normality of<br>the given weak acid by<br>titrating it against the strong                                          |
|                                                   | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                  |
| Month: Feb                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       | 3. p-block elements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Electronic configuration &                                                                                                       |
| Teaching Da                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 15    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                  |
| Periods Allor                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 13    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                  |
| Periods Available  Teaching Practicals/ Tutorials |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       | Borane-Diborane Borazine Allotropes of Carbon &                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                  |
|                                                   | and the same of th | Tests | Inorganic Chemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Alkalinity of antacid tablet                                                                                                     |
|                                                   | K.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |       | Organic Chemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <ol> <li>Preparation of p-nitro<br/>acetanilide from acetanilide</li> <li>Preparation of acetanilide<br/>from aniline</li> </ol> |

|              |                          |       | Physical Chemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 3. Preparation of phthalimide from phthalic unhydride  Organic qualitative analysis Identification of organic compound- Aniline  1. Chemical Kinetics - to determine relative strength of acids 2. Chemical Kinetics- to study the reaction between potassium persulphate & potassium iodide. (Equal |
|--------------|--------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | 8                        | Ī.    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | concentration)                                                                                                                                                                                                                                                                                       |
| Month: Mar   | reh                      |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Oxyacids of Nitrogen                                                                                                                                                                                                                                                                                 |
| Teaching Da  | ys                       | 15    | 3. p-block elements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Hydrides of Nitrogen                                                                                                                                                                                                                                                                                 |
| Periods Allo | tted                     | 13    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Position of elements,                                                                                                                                                                                                                                                                                |
| Periods Avai | lable                    |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                      |
| Teaching     | Practicals/<br>Tutorials | Tests | 4.Chemistry of elements of 3d transition series  Inorganic Chemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Characteristics – Electronic configuration, Stability, Magnetic character, Oxidation state, Colored ions, Complex formation  1. Semi-Micro qualitative analysis                                                                                                                                      |
|              | 2                        | 1     | Company of the contract of the |                                                                                                                                                                                                                                                                                                      |
|              | d                        | 1     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | a                                                                                                                                                                                                                                                                                                    |

10 Fath

Sign of the Teacher

Sign of the Head

IQAC CO-ORDINATOR Y. C. COLLEGE, ISLAMPUK Sign of the Principal **Principal**Yashwantrao Chaven Mahavidyalaya

URUN-ISLAMPUR, (Dist. Sang

Subject : Botany

Class

: BSC. Part I

Paper No: IV

Paper Title: PLANT TAXONOMY

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                    | Topic /Unit                                                            | Sub-units Planned                               |  |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------|--|
| Month: Nove      | NAME AND ADDRESS OF THE PARTY O |                                                    |                                                                        |                                                 |  |
| Teaching Days    | S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                    |                                                                        |                                                 |  |
| Periods Allotted |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                    |                                                                        |                                                 |  |
| Periods Availa   | ible                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                    |                                                                        |                                                 |  |
| Teaching         | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests                                              |                                                                        |                                                 |  |
| Month: Dece      | mber                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                    | UNIT-1 INTRODUCTORY                                                    | 1.a Introduction                                |  |
| Teaching Day     | S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 12                                                 | TAXONOMY,ICBN, BOTANICAL                                               | 1.11dentification,                              |  |
| Periods Allotte  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 10                                                 | GARDENS                                                                | Nomenclature,                                   |  |
| Periods Availa   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1                                                  |                                                                        | 1.2Binomial Nomenclature.                       |  |
| Teaching         | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests                                              |                                                                        | 1.3Salient features of (ICBN)                   |  |
| 10 02            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Study of flowering twig<br>Study of flowering twig | Morphology,Vegetative<br>Floral characters                             |                                                 |  |
| Month: Janu      | ary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                    | UNIT -1.b                                                              | 1.1Harbarium<br>1.2Botanical Gardens            |  |
| Teaching Day     | S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 13                                                 |                                                                        |                                                 |  |
| Periods Allotted |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 11                                                 |                                                                        |                                                 |  |
| Periods Availa   | able                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                    | 7                                                                      |                                                 |  |
| Teaching         | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests                                              |                                                                        |                                                 |  |
| 11               | 03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                    | Study of primitive and advanced characters in flowers                  | Hibiscus, Rosa indica,<br>Solanum               |  |
| Month: Febr      | uary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 4                                                  | UNIT2.a Classification of                                              | 2.1Salient features 2.2 Types of classification |  |
| Teaching Day     | The state of the s | 12                                                 | angiosperms                                                            |                                                 |  |
| Periods Allott   | ed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 11                                                 |                                                                        |                                                 |  |
| Periods Avail    | able                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                    |                                                                        |                                                 |  |
| Teaching         | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests                                              |                                                                        |                                                 |  |
| 11               | 04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                    | Study of Vegetative and Floral characters of following plant families, | Caesalpiniaceae<br>Solanaceae<br>Nyctaginaceae  |  |
| Month: Marc      | eh .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                    | UNIT2.b Study of Angiosperm                                            | 2.1 Caesalpiniaceae.                            |  |
| Teaching Day     | 'S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 12                                                 | families                                                               | 2.2 Solanaceae.                                 |  |
| Periods Allotted |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 10                                                 |                                                                        | 2.3.Nyctaginaceae.                              |  |
| Periods Avail    | able                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                    |                                                                        | 2.4 Liliaceae                                   |  |
| Teaching         | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests                                              |                                                                        |                                                 |  |

Sign of the Teacher

Sign of the Head

IQAC CO-OTUMATOR V. C. COLLEGE, ISLAMPUR Sign of the Principal URUN-IBLAMPUR, (IDSL SGR)

Subject : Botany

Paper No: IV

Class

: BSc Part II

Paper Title: Plant Metabolism

|                   |                          |                  | Topic /Unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Sub-units Planned                                                                                           |  |
|-------------------|--------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|--|
| Month: Nov        | Month: November          |                  | 1.a: Enzymes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1.1: Introduction                                                                                           |  |
| Teaching Days     |                          | 08               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1.2 : Classification and                                                                                    |  |
| Periods Allo      | tted                     | 08               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Nomenclature                                                                                                |  |
| Periods Ava       | ilable                   |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1.3 : Structure and                                                                                         |  |
| Teaching          | Practicals/<br>Tutorials | Tests            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | properties 1.4: Mechanism of enzyme action. 1.5: Factors affecting enzyme activity . 1.6: Enzyme inhibition |  |
| 08                | 03                       |                  | Study of evolution of oxygen Study of effect of light intensity Demonstration of ascent of sap in plants                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | During Photosynthesis  During Photosynthesis  Stain Test  Ringing experiments.                              |  |
| Month: Dec        | ember                    |                  | 1.b: Nitrogen Metabolism                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1.7: Introduction 1.8                                                                                       |  |
| Teaching Da       | ıys                      | 12               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Biological Nitrogen                                                                                         |  |
| Periods Allo      | tted                     | 11               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Fixation-                                                                                                   |  |
| Periods Ava       | ilable                   | -                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1.9: Mechanism                                                                                              |  |
| Teaching          | Practicals/<br>Tutorials | Tests            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Nitrogen Fixation 1.10: Nitrate reduction 1.11: Ammonia assimilation 1.12: nif genes                        |  |
| 11                | 03                       | 01               | Demonstration of osmosis.  Determination of sugar percentage Study of permeability of plasma membrane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Endo-osmosis, Exo-osmosis Hand Refractometer  Using different concentration of organic solvent              |  |
| Month: January    |                          | 2.a: Respiration | 2.1: Introduction 2.2:Types                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                             |  |
| Teaching Days 1   |                          | 12               | The state of the s | of respiration                                                                                              |  |
| Periods Allotted  |                          | 12               | r r                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2.3:Glycolysis                                                                                              |  |
| Periods Available |                          |                  | 2.4: Formation of Acety                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                             |  |
| Teaching          | Practicals/<br>Tutorials | Tests            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Co A 2.5: TCA cycle 2.6: ETS in mitochondria 2.7: Fermentation                                              |  |

| 12                | 03                       |       | Study of typical flower and its parts.  Study of anther by permanent slide  Study of germination of pollen grain                      | Calyx, Corolla, Androecium,<br>Gynoecium<br>Young mature by<br>permanent slide.                                                         |  |
|-------------------|--------------------------|-------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--|
| Month: Fel        |                          | -     | 2.b: Seed Dormancy                                                                                                                    | 2.8: Concept of dormancy                                                                                                                |  |
| Teaching Da       | 21.50                    | 12    |                                                                                                                                       | 2.9: Causes of dormancy                                                                                                                 |  |
| Periods Allo      | otted                    | 11    |                                                                                                                                       | 2.10: Methods of breaking                                                                                                               |  |
| Periods Ava       | iilable                  |       |                                                                                                                                       | of seed dormancy                                                                                                                        |  |
| Teaching          | Practicals/<br>Tutorials | Tests |                                                                                                                                       |                                                                                                                                         |  |
| 11                | 04                       | 01    | Detection of pollen fertility Study of types of ovules Study of dicotyledon and monocotyledon embryo Dissection of embryo / endosperm | Permanent slide or photograph Permanent slide or photograph Permanent slide or photograph from developing seeds Grevellia /Cucumis seed |  |
| Month: Ma         | rch                      |       | 2.b: Seed Germination                                                                                                                 | 2.11: - Introduction and                                                                                                                |  |
| Teaching Days 11  |                          | 11    |                                                                                                                                       | types                                                                                                                                   |  |
| Periods Allotted  |                          | 10    |                                                                                                                                       | 2.12: Factors affecting seed                                                                                                            |  |
| Periods Available |                          |       | germination                                                                                                                           |                                                                                                                                         |  |
| Teaching          | Practicals/<br>Tutorials | Tests | -                                                                                                                                     | 2.13: Biochemical changes during seed germination                                                                                       |  |
| 10                |                          | 01    |                                                                                                                                       |                                                                                                                                         |  |

IQAC CO-OTATE Sign of the Head Y. C. COLLEGE, ISLAMPUR

Sign of the Principal

Yashwantrao Chavari Manavidyalaya URUNISLAMPUR, (Dist. Sang

Subject : Chemistry

Class: B.Sc Part - II (Sem - IV)

Paper No: VIII

Paper Title: Organic Chemistry

| positio . vii    |                          |       | Tuper                                     | itte: Organic Chemistry                                                                                                                                                         |
|------------------|--------------------------|-------|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                  |                          |       | Topic/Unit                                | Sub-units Planned                                                                                                                                                               |
| Month: No        | vember                   |       |                                           |                                                                                                                                                                                 |
| Teaching D       | ays                      | 4     |                                           |                                                                                                                                                                                 |
| Periods All      | otted                    |       |                                           |                                                                                                                                                                                 |
| Periods Ava      | iilable                  |       |                                           |                                                                                                                                                                                 |
| Teaching         | Practicals/<br>Tutorials | Tests |                                           |                                                                                                                                                                                 |
| Month: De        | cember                   |       | 1. Carboxylic acids and their derivatives | Monocarboxylic acids                                                                                                                                                            |
| Teaching Days    |                          | 8     | their derivatives                         | Halo,mono,di,tri chloracetic acid, Substitutio reaction of monochlor                                                                                                            |
| Periods Allotted |                          | 8     |                                           |                                                                                                                                                                                 |
| Periods Ava      | iilable                  | •     |                                           | acetic acid.                                                                                                                                                                    |
|                  | Practicals/<br>Tutorials | Tests |                                           | 2.Organic qualitative analysis identification of organic compound Methyl acetate, urea, CCI4, ethyl methyl ketone.                                                              |
|                  |                          |       | Inorganic chemistry                       | <ol> <li>Preparation of tri<br/>(ethylene diamine nicke<br/>(ll) thiosulphate.</li> <li>Titrimetric analysis o<br/>vinegar sample.</li> </ol>                                   |
|                  |                          |       | Physical Chemistry                        | 1. Viscosity- to determine the percentage composition of a given liquid mixture.  2. Refractometery- to determine the specific & molar refraction of benzene, toluene 7 xylene. |

| 04                 | ્ <b>શ</b>               |       |                         | /° 1. C.                                                                                                                                                                                         |
|--------------------|--------------------------|-------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: Ja          | nuary                    |       | 1.Carboxylic acids and  | Hydroxy acid                                                                                                                                                                                     |
| Teaching Days 7    |                          | 7     | their derivatives       | Unsaturated acids                                                                                                                                                                                |
| Periods Allotted 8 |                          | 8     | ×-                      | Diearboxylie acids Carboxylie acid derivatives.                                                                                                                                                  |
| Periods Av         | Periods Available        |       |                         | Carboxyne acid derivatives.                                                                                                                                                                      |
| Teaching           | Practicals/<br>Tutorials | Tests | Physical Chemistry      | 1.Conductometry- To<br>determine the normality of<br>given strong acid by<br>titrating it against the strong<br>alkali                                                                           |
|                    |                          |       |                         | 2. Conductometry- To determine the normality of given weak acid against the strong alkali,  [Gravimetric estimation of                                                                           |
|                    |                          |       | Inorganic Chemistry     | iron  2 Gravimetric estimation of Barium.  3 Titremetric Analysis-Hardness of water.                                                                                                             |
|                    |                          |       | Organic Chemistry       | 1 Estimation of vitamin C                                                                                                                                                                        |
| 01                 | 06                       |       |                         |                                                                                                                                                                                                  |
| Month: F           | ebruary                  |       | 2. Amines and Diazonium | Methods of                                                                                                                                                                                       |
| Teaching           | Days                     | 5     | salts                   | preparations<br>Reactions                                                                                                                                                                        |
| Periods Allotted   |                          | 6     |                         | Diazonium salts                                                                                                                                                                                  |
| Periods Available  |                          |       | Chemical reaction       |                                                                                                                                                                                                  |
| Teaching           | Practicals/<br>Tutorials | Tests | Organic Chemistry       | <ol> <li>Organic qualitative analysis-identification of organic compound- Aniline</li> <li>Preparation of Acetanilide from aniline.</li> <li>Preparation of phthalimide from Phthalic</li> </ol> |

|                   |                          |       | Physical Chemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | anhydride. 4. Preparation of p-nitro acetanilide from acetanilide.  1. Chemical Kinetics- to determine relative strength of acids. 2. Chemical Kinetics- To study the reaction between potassium persulphate & potassium iodide.(Equal concentration).  1. Tritrimetric Analayis-Alkalinity of antacid tablet. 2. Trotrimetric analysis-Analysis of Commercial sample (talcum powder). |
|-------------------|--------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 02                | 06                       |       | и                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                        |
| Month: M          | arch                     |       | 4. Carbonyl compounds                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Reactivity of carbonyl                                                                                                                                                                                                                                                                                                                                                                 |
| Teaching D        | )ays                     | i.e.  | Aldehydes and ketones                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | groups, reactions-perkin, aldoi                                                                                                                                                                                                                                                                                                                                                        |
| Periods Allotted  |                          | 4.    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | condensation, cannizzaro s, knoevengel and their                                                                                                                                                                                                                                                                                                                                       |
| Periods Available |                          |       | applications and mechanism.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                        |
| Teaching          | Practicals/<br>Tutorials | Tests | Inorganie Chemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Semi-micro qualitative     analysis                                                                                                                                                                                                                                                                                                                                                    |
|                   |                          |       | at the same and th |                                                                                                                                                                                                                                                                                                                                                                                        |

Sign of the Head

IQAC CO-ORD MASSES V. C. COLLEGE, ISLAMINA Sign of the Principal

Yashwantrae Cheven Mehavidyalaya
URUN-IS LAMPUS (1991, Sang

2019-20

Subject : Physics

Paper No: V & VI

Class

: B.Sc Part - II (Sem - IH)

Paper Title: Thermal physics &

#### statastical. mechanics

|                                                                   |                          |                                                                     | Topic /Unit                                      | Sub-units Planned                                                                                           |
|-------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Month: June                                                       | 2                        |                                                                     |                                                  |                                                                                                             |
| Teaching Day                                                      | ys                       |                                                                     |                                                  |                                                                                                             |
| Periods Allotted                                                  |                          | 7                                                                   |                                                  |                                                                                                             |
| Periods Avai                                                      | lable                    |                                                                     |                                                  |                                                                                                             |
| Teaching                                                          | Practicals/<br>Tutorials | Tests                                                               |                                                  | 8                                                                                                           |
| Month: July                                                       |                          |                                                                     |                                                  | Mean free path, Maxwell's                                                                                   |
| Teaching Day                                                      | ys                       | 14                                                                  | 1. Kinetic theory of gases                       | law of distribution of                                                                                      |
| Periods Allot                                                     | tted                     | 13                                                                  | and thermometry                                  | velocities, experimental                                                                                    |
| Periods Avai                                                      | lable                    |                                                                     |                                                  | Verification of Maxwell                                                                                     |
| renous Available                                                  |                          |                                                                     |                                                  | law, transport phenomena,<br>transport of mass, transport<br>of momentum law of<br>equipartition of energy. |
| Teaching                                                          | Practicals/<br>Tutorials | Tests                                                               | 1) Thermal conductivity by<br>Searl's method     | v                                                                                                           |
|                                                                   |                          |                                                                     | 2)Thermal conductivity by lee & charltons method |                                                                                                             |
|                                                                   |                          |                                                                     | 3)Thermocouple I                                 |                                                                                                             |
|                                                                   | 3                        |                                                                     |                                                  |                                                                                                             |
| Month: Aug                                                        | gust                     |                                                                     |                                                  | Principle of thermometry                                                                                    |
| Teaching Da                                                       | ıys                      | 12                                                                  | 1. Kinetic theory of gasses                      | platinum resistance<br>thermometer, mercury                                                                 |
| Periods Allo                                                      | tted                     | 11                                                                  | and thermometry                                  |                                                                                                             |
| Periods Avai                                                      | ilable                   | 1777.                                                               |                                                  | thermometer,<br>thermoelectric                                                                              |
| Teaching Practicals/ Tutorials Tests 4) Specific heat of graphite |                          | thermometer, Thermistor as thermomete, mercury ir glass scale. MCQ. |                                                  |                                                                                                             |
|                                                                   |                          |                                                                     | 5)Post office box                                |                                                                                                             |
| 2                                                                 |                          |                                                                     |                                                  |                                                                                                             |
| Month: Sep                                                        | tember                   |                                                                     |                                                  | Measurement of lov                                                                                          |
| Teaching Da                                                       | ays                      | 15                                                                  | 2. Physics of low pressure                       | pressure, some                                                                                              |
| Periods Allo                                                      | otted                    | 14                                                                  |                                                  | characteristic of a vacuum                                                                                  |
| Periods Ava                                                       | ilable                   | HPA2900.00.00 =                                                     |                                                  | pump, rotary oil pump                                                                                       |

|              |                          |       |                                                | diffusion pump, molecular<br>pump, knudsen<br>absoluteGauge. |
|--------------|--------------------------|-------|------------------------------------------------|--------------------------------------------------------------|
| Teaching     | Practicals/<br>Tutorials | Tests | 6) Coupled oscillation                         |                                                              |
|              | Tutoriais                |       | 7)Meldes experiment                            |                                                              |
|              |                          |       | 8) Thermocouple II                             |                                                              |
|              | 3                        |       |                                                |                                                              |
| Month: Oct   | ober                     |       | 2. Physics of low pressure                     | Pirani gauge, leak                                           |
| Teaching Da  | ıys                      | 11    | 9) Poiseuille's method                         | detection.                                                   |
| Periods Allo | tted                     | 10    |                                                |                                                              |
| Periods Ava  | ilable                   |       |                                                |                                                              |
| Teaching     | Practicals/<br>Tutorials | Tests | 10) Searle's viscometer  11) Stefan's constant |                                                              |
|              | 3                        |       |                                                |                                                              |

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Yashwantrac Chavilla Units in 1773
URUS VOLABOTES VISU Sang

2019-20

Subject : physics

Class

: B.Sc Part - II (Sem - III)

Paper No : V

Paper Title: Thermal physics and statistical mechanic

|                      | - Control - Control      |                 | Topic /Unit                                                                                                                 | Sub-units Planned                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------|--------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -Assile Jun          | 10                       |                 |                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| baching Da           | iys                      |                 |                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| eninds Allotted      |                          |                 |                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| forious Ava          | ilable                   |                 |                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Teaching             | Practicals/<br>Tutorials | w csis          | 8                                                                                                                           | 8)<br>2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| è:                   |                          |                 |                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Naomin: July         | Y                        |                 | Theory:                                                                                                                     | Theromodynamic system,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Tuaching Da          | ys                       | 8               | dunit II                                                                                                                    | theromodynamic system,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Feriocis Alle        | ited                     | w S             | Laws of                                                                                                                     | variables equation of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| t griods Ava         | ilable                   |                 | Theromodynamics                                                                                                             | state, zeroth law of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| eaching              | Practicals/<br>Tutorials | Tests           | PRACTICAL:  1) Thermal conductivity by Searl's method  2) Thermal conductivity by lee & charltons method  3) Thermocouple I | thermodynamics, internal energy. First law of thermodynamics, conversion of heat into work.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                      | 3                        |                 |                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Vonth: Aug           | Çust                     |                 | Theory:                                                                                                                     | Specific heats C <sub>p</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| leaching Da          | lys.                     | 7               | Unit II Laws of Theromodynamics                                                                                             | C. Application of first law, work done during                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Puriods Alfo         | ited                     | 18              |                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Pariods Ava          | i <mark>tabl</mark> e    |                 | PRACTICAL:                                                                                                                  | isothermal and adiabatic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| eachily              | Practicals/<br>Tutorials | Tests           | 4) Specific heat of graphite 5)Post office box                                                                              | process, reversible irreversible process second law thermodynamics, Carnot theorem, third law thermodynamics.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| \$                   | 2                        |                 |                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Month: Sep           | tember                   |                 | Theory:                                                                                                                     | Transverse waves on a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Traching Da          |                          | 7               | Unit I                                                                                                                      | string, travelling and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Periods Allotted     |                          | 7               | Topic 3:                                                                                                                    | standing waves on a string,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Zeriods Available    |                          | Wave motion and | normal modes of string,                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <sup>1</sup> enching | Practicals/<br>Tutorials | Tests           | ultrasonic waves 6.Coupled oscillator 7.Meldes experiments 8.Thermocouple II                                                | group velocity and phase<br>velocity. phase<br>waves, spherical waves                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| †I                   | 3                        |                 |                                                                                                                             | - Andrews - Andr |
|                      |                          |                 |                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Nami: October     |                          |                  | Unit i                                                               | Acoustics of buildings:                                                                  |
|-------------------|--------------------------|------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Fracting Days     |                          | 6                | Topic 3:                                                             | Reverberation and time                                                                   |
| Erricas Allotted  |                          | 7                | CHEVA NORMAL COMMON                                                  | reverberation, absorption                                                                |
| Periods Available |                          | ultrasonic waves | coefficient, sabine's                                                |                                                                                          |
| es ching          | Practicals/<br>Tutorials | Tests            | 9.Poiseuilles method<br>10. Searls viscometer<br>11.Stefans constant | formula for measurement or reverberation time. Acoustics aspects of halfs and auditoria. |
| .4                | 3                        |                  |                                                                      |                                                                                          |

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2019-20

Teachers Name: Mr. Sawant Rajendra Jagannath

Subject ; zoology

Paper No: V

Class

: B. Sc. Part II (Sem III)

Paper Title: Animal Diversity II

|                  |                               |                 | Topic /Unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Sub-units Planned                                                                                                                                                                                                                                                                                                                                                                        |
|------------------|-------------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: August    |                               | Unit-1:         | General features and Retrogressive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                          |
| Periods Allotted |                               | protochordates: | metamorphosis in Ascidian tadpole (Eg.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                          |
|                  |                               |                 | TOTAL FOR SERVICE STATE OF THE |                                                                                                                                                                                                                                                                                                                                                                                          |
| eriods Available |                               | Agnatha         | Herdmania)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                          |
|                  |                               |                 | Agnatha                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | General features of Agnatha and classification of cyclostomes up to classes.:                                                                                                                                                                                                                                                                                                            |
| Teaching         | Practicals/<br>Tutorials      | Tests           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit: 1 Animal diversity-II: 1. Study of the following specimens with reference to morphological peculiarities and classification up to orders: Herdmania, Branchiostoma, Petromyzon, Sphyrna, Pristis, Torpedo, Labeo, Exocoetus, Anguilla, Ichthyophis/Ureotyphlus, Salamandra, Bufo, Hyla, Chelone, Hemidactylus, Chamaeleon, Draco, Crocodylus, Gavialis.                            |
| Month: Se        | ptember                       |                 | . Pisces:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | General features and Classification up to                                                                                                                                                                                                                                                                                                                                                |
| Teaching I       | Days                          | 11              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | order:Swim bladder, Breeding and parental care in fishes                                                                                                                                                                                                                                                                                                                                 |
| Periods Al       | lotted                        |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                          |
| Periods Av       | vailable                      |                 | Amphibia:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | General features and Classification up to                                                                                                                                                                                                                                                                                                                                                |
| Teaching         | Practicals/<br>Tutorials      | Tests           | 7 tinpinoid.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | order: Neoteny and Parental care in Amphibia (Order: Anura, Apoda, Urodela) Icthyophis and parental care in fishes  2. Characters identifying venomous and nonvenomous snakes: Russell's viper, Saw scaled viper, Common krait, Indian Cobra, Sea snake, Rat snake and Checkered keelback  3. Study of any six common birds from different orders with the help of photographs and keys. |
| Month: O         | ctober                        |                 | Unit 2- Reptiles:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | General features and Classification                                                                                                                                                                                                                                                                                                                                                      |
| Teaching         | 14.74.0.1 <del>4</del> .0.160 | 12              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | up to order:Venomous and non-venomous                                                                                                                                                                                                                                                                                                                                                    |
| Periods A        | llotted                       |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                          |
| Periods A        | vailable                      | -XXLange        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | snakes, Bitingmechanism in snakes. First Aid                                                                                                                                                                                                                                                                                                                                             |
| Teaching         | Practicals/<br>Tutorials      | Tests           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Treatment, Sources of treatment (Govt. hospitals) Information of Haffkin institute                                                                                                                                                                                                                                                                                                       |

|                          |                          |       | Aves:    | Generalfeatures and Classification up to order: Brain of fowl,  Aerial Adaptations in birds (Morphological, Anatomical and Physiological).  4. Study of the following specimens with reference to morphological peculiarities and classification up to orders: shrews, Bat, Squirrel and Loris. An "animal album" containing photographs, cut outs, with appropriate write up about the above mentioned taxa. Different taxa/topics may be given to students for this purpose.  5. Dissection of brain of fowl.  6. Temporary preparation of hyoid apparatus, sclerotic plates, Pecten and Collumella of fowl.  7. Temporary preparation of Cycloid, Ctenoid and Placoid scales in fishes. |
|--------------------------|--------------------------|-------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: No                | -                        | 02    | Mammals: | General features and Classification up to                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Teaching I<br>Periods Al |                          | 03    |          | order:Study of Adaptive radiations in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Periods Av               |                          |       |          | mammals, (Duck Billed Platypus, Kangaroo,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| renous Av                | vaniable                 |       |          | Bottle nose Dolphin, Blue Whale, Scaly ant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Teaching                 | Practicals/<br>Tutorials | Tests |          | eater, Spiny ant eater)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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URUNHSLEADEUR, Chief Sang

Teachers Name: Pudale Pratibha Dilip

Subject : Computer Science

Class

: B. Sc. Part II (Sem I)

Paper No: VI

Paper Title: Object oriented Programming using C++ (DSC-12C)

|                                                                                                   | 0                         |                                                                          | Topic /Unit                                                                                                                                                                                                                                                                                                                  | Sub-units Planned                                                                                                                                                                                                                                                                                               |  |
|---------------------------------------------------------------------------------------------------|---------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Month: July Teaching Days Periods Allotted Periods Available Teaching Practicals/ Tests Tutorials |                           | Unit – I: - Introduction to C++ and Basic of Object Oriented Programming | <ul> <li>POP and OOP Difference, Benefit Of C++ over C language.</li> <li>OOP concept: Polymorphism, Inheritance, Class, Encapsulation, Abstraction</li> <li>Basic C++ Program: Header file, name space Std main(), Input and output operator</li> <li>C++ Tokens: Variable, Keyword, constant Operators, Strings</li> </ul> |                                                                                                                                                                                                                                                                                                                 |  |
| Month: Aug Teaching Days Periods Allotted                                                         |                           | Unit – I: - Introduction to C++ and Basic of                             | <ul> <li>C++ Data Types: Built in Data<br/>types, Derived data types, User<br/>defined data types</li> <li>Symbolic Constraints: Const</li> </ul>                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                 |  |
| Periods Avai                                                                                      | Practicals/<br>Tutorials  | Tests                                                                    | Object<br>Oriented<br>Programming                                                                                                                                                                                                                                                                                            | <ul> <li>(simple ,, Pointer</li> <li>Variable , Operators in C++         :DMA Operator , :: Scope         resolution operator Manipulator         operator</li> <li>Functions in C++:Prototyping ,         function call return by reference         , inline functions function         overloading</li> </ul> |  |
| Month:sept                                                                                        |                           |                                                                          | Unit – II:<br>Object                                                                                                                                                                                                                                                                                                         | C++ Class : Difference between struct and                                                                                                                                                                                                                                                                       |  |
| Teaching Da                                                                                       | ys                        |                                                                          |                                                                                                                                                                                                                                                                                                                              | class Class specification                                                                                                                                                                                                                                                                                       |  |
| Periods Allot                                                                                     | tted                      |                                                                          | Oriented                                                                                                                                                                                                                                                                                                                     | • Visibility Labels -Private, Public,                                                                                                                                                                                                                                                                           |  |
| Periods Avai                                                                                      | lable                     |                                                                          | Programming                                                                                                                                                                                                                                                                                                                  | Protected Array ,  This Pointer                                                                                                                                                                                                                                                                                 |  |
| Teaching                                                                                          | Practical's/<br>Tutorials | Tests                                                                    |                                                                                                                                                                                                                                                                                                                              | <ul> <li>This Pointer</li> <li>Friend Function: Characteristic Friend function friend class</li> </ul>                                                                                                                                                                                                          |  |
| Month: Oct                                                                                        |                           | Unit – II:<br>Object                                                     | • Constructor: Definition characteristic, features and Types                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                 |  |
| Teaching Da                                                                                       | ys                        | (                                                                        | Oriented                                                                                                                                                                                                                                                                                                                     | Destructor : definition , need of destructor                                                                                                                                                                                                                                                                    |  |
| Periods Allotted                                                                                  |                           | Programming                                                              | Operator Overloading : concept rules<br>definition of operator function                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                 |  |
| Perio                                                                                             | Periods Available         |                                                                          |                                                                                                                                                                                                                                                                                                                              | <ul><li>overloading unary and binary</li><li>Inheritance : concept , types</li></ul>                                                                                                                                                                                                                            |  |
| Teaching                                                                                          | Practicals/<br>Tutorials  | Tests                                                                    |                                                                                                                                                                                                                                                                                                                              | Polymorphism : definition , Types of polymorphism                                                                                                                                                                                                                                                               |  |

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Yashwantrao Chavan Manusalyata
URUN-ISLAMBUR, 1988 Sang

Teachers Name: Pudale Pratibha Dilip

Subject : Computer Science

Class

: B. Sc. Part II (Sem II)

Paper No: VIII

Paper Title: Data Structure using C++ (DSC-12D)

|             |                          |                                                                             | Topic /Unit                                                                                                                                                                                                                                                               | Sub-units Planned                                                                                                                                                                                                                               |
|-------------|--------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: Jul  | y                        |                                                                             | Unit – I: -                                                                                                                                                                                                                                                               | Concept of abstract data types:                                                                                                                                                                                                                 |
| Teaching D  | ays                      |                                                                             | Introduction                                                                                                                                                                                                                                                              | Definition: Data type, data                                                                                                                                                                                                                     |
| Periods All | otted                    |                                                                             | to Data                                                                                                                                                                                                                                                                   | object Data structure                                                                                                                                                                                                                           |
| Periods Ava | Periods Available        |                                                                             | structure and                                                                                                                                                                                                                                                             | Classifications                                                                                                                                                                                                                                 |
| Teaching    | Practicals / Tutorials   | Tests                                                                       | Linear Data<br>Structures :<br>Array Stack<br>And Queue                                                                                                                                                                                                                   | <ul> <li>Basic Operations: Traversing, searching Insertion, Deletion, sorting</li> <li>Array: Definition as data structure, Type Application of array</li> </ul>                                                                                |
| Month: Au   | g                        |                                                                             | Unit – I: -                                                                                                                                                                                                                                                               | Sorting : definition , Stable -                                                                                                                                                                                                                 |
| Teaching D  | ays                      |                                                                             | Introduction                                                                                                                                                                                                                                                              | Unstable sorting, sorting technique                                                                                                                                                                                                             |
| Periods All | otted                    |                                                                             | to Data                                                                                                                                                                                                                                                                   | : Bubble sort, selection sort                                                                                                                                                                                                                   |
| Periods Ava | ailable                  |                                                                             | structure and Linear Data                                                                                                                                                                                                                                                 | Insertion sort Quick sort                                                                                                                                                                                                                       |
|             | Practicals/<br>Tutorials | Tests                                                                       | Structures :<br>Array Stack<br>And Queue                                                                                                                                                                                                                                  | <ul> <li>Scarching: Liner searching, Binary Searching</li> <li>Stack: Definition, Operations, Implementation</li> <li>Application of Stack: Recursive, Mathematical Expressions</li> <li>Queue: Definition, Operation, type of Queue</li> </ul> |
| Month:sep   | t                        |                                                                             | Unit – I1: -                                                                                                                                                                                                                                                              | • Linked List: Concept of Linked                                                                                                                                                                                                                |
| Teaching D  | ays                      |                                                                             | Non Linear                                                                                                                                                                                                                                                                | List, Types, Implementation of                                                                                                                                                                                                                  |
| Periods All | otted                    |                                                                             | Data                                                                                                                                                                                                                                                                      | Linked List, Operation on Linear                                                                                                                                                                                                                |
| Periods Av  | ailable                  |                                                                             | Structures :                                                                                                                                                                                                                                                              | Linked List                                                                                                                                                                                                                                     |
| Teaching    | Practical's / Tutorials  | Tests                                                                       | Linked List<br>And Trees                                                                                                                                                                                                                                                  | <ul> <li>Application : Implementation of<br/>stack and Queue using Linked List</li> <li>Trees : Definition , Terminology ,</li> </ul>                                                                                                           |
| Teaching    | Practical/<br>Tutorials  | Tests                                                                       |                                                                                                                                                                                                                                                                           | of Tree diagram                                                                                                                                                                                                                                 |
| Month:Oct   |                          | Unit – II:<br>Non Linear<br>Data<br>Structures:<br>Linked List<br>And Trees | <ul> <li>Binary Tree: Definition, Types</li> <li>Array Representation of binary<br/>Tree</li> <li>Binary Search Tree: Definition,<br/>representation, Operations:</li> <li>Insertion, Deletion, Search, Tree<br/>Traversal: Preorder, In order,<br/>Post order</li> </ul> |                                                                                                                                                                                                                                                 |

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URUN-ISLAMINE

Yashwantrao (

2019-20

#### YASHWANTRAO CHAVAN COLLEGE, ISLAMPUR

#### ANNUAL TEACHING PLAN

#### 2019-20

Teachers Name :Mr.Sudhir V PatilSubject :Computer Application

Class: B.C.A. Part II (SemIII)Paper No : I Paper Title : 304 OOP with CPP



|                      |                           |                     | Topic /Unit                    | Sub-units Planned                                                                                                                                                                                                                                    |  |
|----------------------|---------------------------|---------------------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Month: June          |                           | 2 34441 [22         | Admissions                     |                                                                                                                                                                                                                                                      |  |
| Teaching Days        |                           | 20                  |                                |                                                                                                                                                                                                                                                      |  |
| Periods Allotted     |                           | 10                  |                                |                                                                                                                                                                                                                                                      |  |
| Periods Available 10 |                           |                     |                                |                                                                                                                                                                                                                                                      |  |
| Teaching             | Practicals/<br>Tutorials  | Tests               |                                |                                                                                                                                                                                                                                                      |  |
|                      |                           |                     |                                |                                                                                                                                                                                                                                                      |  |
| Month: July          |                           |                     | Topic:-Programming             | Introduction, Data types, Constants & variables, arrays,                                                                                                                                                                                             |  |
| Teaching Days        |                           | 26                  | with C++                       | Operators, Operator precedence, Control structures inline                                                                                                                                                                                            |  |
| Periods Allotted     |                           | 16                  |                                | function                                                                                                                                                                                                                                             |  |
| Periods Available    | 15                        |                     |                                |                                                                                                                                                                                                                                                      |  |
| Teaching             | Practicals/<br>Tutorials  | Tests               |                                |                                                                                                                                                                                                                                                      |  |
| 16                   | ==                        |                     |                                |                                                                                                                                                                                                                                                      |  |
| Month: August        |                           | Topic:-Introduction |                                |                                                                                                                                                                                                                                                      |  |
| Teaching Days        | 34 1000 - 100110 - 100100 | 25                  | to object oriented programming | Basic concept of OOP, Benefits and futures, class-Def,<br>syntax, member function and data members, Access specifies<br>static data member, defining objects, array of object friend<br>function, object as function argument friend class. function |  |
| Periods Allotted     | 2                         | 16                  |                                |                                                                                                                                                                                                                                                      |  |
| Periods Available    | 16                        |                     |                                |                                                                                                                                                                                                                                                      |  |
| Teaching             | Practicals/<br>Tutorials  | Tests               |                                | overloading. Test on topic 1&2                                                                                                                                                                                                                       |  |
| 16                   |                           |                     | 8                              |                                                                                                                                                                                                                                                      |  |
| Month: Septemb       | er                        |                     | Topic:-Introduction            | Basic concept of OOP, Benefits and futures, class-Def,                                                                                                                                                                                               |  |
| Teaching Days        |                           | 25                  | to object oriented             | syntax, member function and data members, Access specifies                                                                                                                                                                                           |  |
| Periods Allotted     |                           | 16                  | programming;                   | static data member, defining objects, array of object friend                                                                                                                                                                                         |  |
| Periods Available    | 16                        |                     |                                | function, object as function argument friend class. Topic                                                                                                                                                                                            |  |
| Teaching             | Practicals/ Tutorials     | Tests               |                                |                                                                                                                                                                                                                                                      |  |
| 14                   | 3 <del></del>             | 2                   |                                |                                                                                                                                                                                                                                                      |  |
| Month: October       | ti)                       |                     | Topic:-                        | Polymorphism: Meaning, compile Time and Run time, virtual functions, pure virtual function, file, classes for file stream operations, opening and classing files, modes, file pointers,                                                              |  |
| Teaching Days        |                           | 24                  | Polymorphism and               |                                                                                                                                                                                                                                                      |  |
| Periods Allotted     | 1                         | 16                  | file handling                  |                                                                                                                                                                                                                                                      |  |
| Periods Available    | 16                        |                     |                                | input- output operations, get ( ) Put ( ), read ( ) Write ( ). Tes                                                                                                                                                                                   |  |

| Teaching | Practicals/<br>Tutorials | Tests | And the second s | on topic 3&4 |
|----------|--------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| 15 /7    |                          | 1     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |              |

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MAG CO-ORDINATOR Y. C. COLLEGE, ISLAMFUR -----

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#### YASHWANTRAO CHAVAN COLLEGE, ISLAMPUR

#### ANNUAL TEACHING PLAN

#### 2019-20

Teachers Name :Mr.SudhirPatil

Subject :Computer Application

Class: B.C.A. Part III (Seml)

Paper No :I

Paper Title: Programming in 'C' Part-I

|                              |                          | THE RESERVE THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TO THE PERSON NAMED | Topic /Unit                                    | Sub-units Planned                                                                                                                                                                    |
|------------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: June                  |                          | lakon s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Admissions                                     |                                                                                                                                                                                      |
| Teaching Days                |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                |                                                                                                                                                                                      |
| Periods Allotted             |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                |                                                                                                                                                                                      |
| Periods Available            |                          | 50 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                |                                                                                                                                                                                      |
| Teaching                     | Practicals/<br>Tutorials | Tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                |                                                                                                                                                                                      |
| Month: July                  | 11282 219 412            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Topic:-Problem Solving                         | Problem definition, analysis. ALGORITHM                                                                                                                                              |
| Teaching Days                |                          | 26                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Methods:                                       |                                                                                                                                                                                      |
| Periods Allotted             | 4                        | 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                |                                                                                                                                                                                      |
| Periods Available            | 16                       | NAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                |                                                                                                                                                                                      |
| Teaching                     | Practicals/              | Tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                |                                                                                                                                                                                      |
| 16                           | ā.                       | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                |                                                                                                                                                                                      |
| Month: August                |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Topic:-Introduction to c                       | characteristics of algorithm, examples on algorithm.                                                                                                                                 |
| Teaching Days 25             |                          | *                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | FLOWCHARTS: Definition, features of flowcharts |                                                                                                                                                                                      |
| Periods Allotted             |                          | 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                | symbols, examples, coding,running, Test                                                                                                                                              |
| Periods Available            | 16                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                |                                                                                                                                                                                      |
| Teaching                     | Practicals/              | Tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                | History, features of c language, Character set, Identifiers variables, constants, symbolic constants, keywords. Data types,                                                          |
| 16                           |                          | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                |                                                                                                                                                                                      |
| Month: September             |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Topic:-Control                                 | Operators: Arithmetic, relational, logical, assignment                                                                                                                               |
| Teaching Days                |                          | 25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Structures                                     | bitwise, increment/decrement and special operators                                                                                                                                   |
| Periods Allotted             |                          | 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                | Structure of program, Input and Output Functions.Test                                                                                                                                |
| Periods Available            | 16                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                | :                                                                                                                                                                                    |
| Teaching                     | Practicals/<br>Tutorials | Tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                | Conditional statements: if, If-else nested if-else, switch<br>statement. Loops: while, for,do.,While loop, Unconditional<br>statements: Break, continue, exit, goto statements. Test |
| 16                           |                          | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                |                                                                                                                                                                                      |
|                              |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Topic:-Arrays and                              | Arrays: Meaning and definition, Declaration, Initialization                                                                                                                          |
| Month: October               | Teaching Days 24         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Strings:                                       | and types of arrays. Strings: Meaning and definition                                                                                                                                 |
| Month: October Teaching Days |                          | 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Strings:                                       | and types of arrays. Strings: Meaning and definition                                                                                                                                 |
|                              |                          | 24<br>16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Strings:                                       | Declaration, Initialization Strin                                                                                                                                                    |
| Teaching Days                | 16                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Strings:                                       |                                                                                                                                                                                      |



|    | Tutorials         |   |  |
|----|-------------------|---|--|
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Yashunntana Chavan Mahavidyalaya

### YASHWANTRAO CHAVAN MAHAVIDYALAYA, ISLAMPUR ANNUAL TEACHING PLAN 2020-21

Class: B.Sc Part - I (Sem I)

Teachers Name : Miss. S.D. Kulkarni

Subject : Chemistry

Paper No: II Paper Title: Organic Chemistry

|                    |                          |       | Topic /Unit                                                                                                                         | Sub-units Planned                                                                                         |  |
|--------------------|--------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--|
| Month: Nove        | ember                    |       | Unit II: Stereochemistry                                                                                                            | Introduction, Types of                                                                                    |  |
| Teaching Days 1    |                          | 17    |                                                                                                                                     | Stereoisomerism, Optical Isomerism:                                                                       |  |
| Periods Allotted   |                          | 2     |                                                                                                                                     |                                                                                                           |  |
| Periods Avai       | lable                    |       |                                                                                                                                     |                                                                                                           |  |
| Teaching           | Practicals/<br>Tutorials | Tests |                                                                                                                                     |                                                                                                           |  |
| 2                  |                          |       |                                                                                                                                     |                                                                                                           |  |
| Month: Dec         | ember                    |       | Unit II: Stereochemistry                                                                                                            | Concept of Chirality,                                                                                     |  |
| Teaching Day       | ys                       | 26    |                                                                                                                                     | Elements of Symmetry                                                                                      |  |
| Periods Allot      | ted                      | 8     |                                                                                                                                     | Optical Isomerism in tartaric acid. 2.                                                                    |  |
| Periods Avai       | lable                    | •     | 1. Estimation of Aspirin.                                                                                                           | tartaric acid, 2, 3 Dihydroxybutanoic acid,                                                               |  |
| Teaching           | Practicals/<br>Tutorials | Tests |                                                                                                                                     | Enantiomerism,                                                                                            |  |
| 4                  | 4                        |       |                                                                                                                                     |                                                                                                           |  |
| Month: Jan         | uary                     |       | Unit II: Stereochemistry                                                                                                            | Diastereomerism and Meso                                                                                  |  |
| Teaching Da        | ys                       | 24    | Practical                                                                                                                           | compounds, Geometrical isomerism in C=C, C=N and alicyclic compounds. Nomenclature                        |  |
| Periods Allo       | tted                     | 8     |                                                                                                                                     |                                                                                                           |  |
| Periods Avai       | ilable                   |       |                                                                                                                                     |                                                                                                           |  |
| Teaching           | Practicals/<br>Tutorials | Tests | Organic Qualitative Analysis: Detection of physical constant, type, functional group, Elements, and Confirmatory test. (Compound 1) | of stereoisomers: D and I erythro and threo, R and S, E and Z.                                            |  |
| 4                  | 4                        |       |                                                                                                                                     |                                                                                                           |  |
| Month: Feb         | ruary                    |       | Unit IV: Cycloalkenes,                                                                                                              |                                                                                                           |  |
| Teaching Da        | ıys                      | 24    | cycloalkenes and                                                                                                                    | Introduction. Method of                                                                                   |  |
| Periods Allotted 3 |                          | 3     | alkadienes                                                                                                                          | formation - a) By additio                                                                                 |  |
| Periods Available  |                          |       | of carbene to alkene b) Action of metalli                                                                                           |                                                                                                           |  |
| Teaching           | Practicals/<br>Tutorials | Tests |                                                                                                                                     | sodium on dihaloalkane of Diels - Alder reaction d) B reduction of aromatic compound Chemical properties- |  |

| 3            |                          |       |                               |
|--------------|--------------------------|-------|-------------------------------|
| Month: Mai   | rch                      |       | Cycloalkenes: Introduction,   |
| Teaching Da  | ys                       | 26    | Method of formation from      |
| Periods Allo | tted                     | 4     | cyclic compounds,<br>Chemical |
| Periods Ava  | ilable                   |       | Properties of cycloalkenes    |
| Teaching     | Practicals/<br>Tutorials | Tests | Properties of alkadine        |
| 4            |                          |       |                               |

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IQAC CO-ORDINATOR
Y. C. COLLEGE, ISLAMPUR

SEAL SEAL MARIER

**Principal** 

Teachers Name: Ms. K. H. Nardekar

Subject: Chemistry

Class: B.Sc. Part-I (Sem - I)

Paper No: II

Paper Title: Organic Chemistry

|                   | *************************************** |       | Topic /Unit | Sub-units Planned                                       |
|-------------------|-----------------------------------------|-------|-------------|---------------------------------------------------------|
| Month: No         | ovember                                 |       |             |                                                         |
| Teaching D        | ays                                     | 15    |             |                                                         |
| Periods All       | otted                                   |       |             |                                                         |
| Periods Av        | ailable                                 |       |             |                                                         |
| Teaching          | Practicals/<br>Tutorials                | Tests |             |                                                         |
| Month: De         | ecember                                 |       |             |                                                         |
| Teaching D        | ays                                     | 25    |             |                                                         |
| Periods All       |                                         |       |             |                                                         |
| Periods Av        | ailable                                 |       |             |                                                         |
| Teaching          | Practicals/<br>Tutorials                | Tests |             |                                                         |
| Month: Ja         | nuary                                   |       | Aromaticity | Introduction     Characteristics properties of aromatic |
| Teaching I        |                                         | 17    |             |                                                         |
| Periods Al        | lotted                                  | 6     |             | compounds                                               |
| Periods Av        | ailable                                 |       |             | Meaning of terms used in aromatic chemistry             |
| Teaching          | Practicals/<br>Tutorials                | Tests |             | Mechanism of electrophilic substitution in benzene      |
| 5                 |                                         | 1     |             |                                                         |
| Month: Fe         | ebruary                                 |       |             | 1 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3                 |
| Teaching I        | Days                                    |       |             |                                                         |
| Periods Allotted  |                                         |       |             |                                                         |
| Periods Available |                                         |       |             |                                                         |
| Teaching          | Practicals/<br>Tutorials                | Tests | *           |                                                         |
|                   |                                         |       |             |                                                         |

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Sign of the Principal

IQAC CO-ORDINATOR Y. C. COLLEGE, ISLAMPUR

### YASHWANTRAO CHAVAN COLLEGE, ISLAMPUR

#### **ANNUAL TEACHING PLAN**

#### 2020-21

Teachers Name: Miss. N. S. Atuagde

Subject : physics

Class: B.Sc Part - I (Sem - I)

Paper No: I

Paper Title: MECHANICS-II

|                    |                          |                | Topic /Unit                                 | Sub-units Planned                                                             |  |
|--------------------|--------------------------|----------------|---------------------------------------------|-------------------------------------------------------------------------------|--|
| Month: Noven       | nber                     |                | Unit III-                                   | Introduction, Newton's law of gravitation,                                    |  |
| Teaching Days 17   |                          | 17             | 1. Gravitation                              | Motion of Partical in central force feild,                                    |  |
| Periods Allotted   |                          | 4              |                                             | Kepler's law.                                                                 |  |
| Periods Available  |                          |                |                                             |                                                                               |  |
| Teaching           | Practicals/<br>Tutorials | Tests          |                                             |                                                                               |  |
| 4                  |                          |                |                                             |                                                                               |  |
| Month: December    |                          | 1. Gravitation | Satellite in circular orbit, Application of |                                                                               |  |
| Teaching Days      | <u> </u>                 | 26             |                                             | satellite, GPS, Weightlessness,                                               |  |
| Periods Allotte    | :d                       | 5              |                                             | Gensychronous orbits                                                          |  |
| Periods Availa     | ble                      |                |                                             |                                                                               |  |
| Teaching           | Practicals/<br>Tutorials | Tests          |                                             |                                                                               |  |
| 5                  |                          |                |                                             |                                                                               |  |
| Month: Janua       | ary                      |                | Unit IV-                                    | Introduction, bending of beam,                                                |  |
|                    |                          | 24             | 2. Elasticity                               | Cantilever, beam supported at both ends, torsional oscillation expression for |  |
| Periods Allotted 4 |                          | 4              |                                             |                                                                               |  |
| Periods Available  |                          |                | torsional couple per unit twist             |                                                                               |  |
| Teaching           | Practicals/<br>Tutorials | Tests          |                                             |                                                                               |  |
| 4                  |                          |                |                                             |                                                                               |  |
| Month: Febru       | uary                     |                | Elasticity                                  | workdone in testing wire, expression fo                                       |  |
| Teaching Day       |                          | 24             |                                             | modules of rigidity                                                           |  |
| Periods Allotte    |                          | 3              |                                             |                                                                               |  |
| Periods Availa     | able                     |                |                                             |                                                                               |  |
| Teaching           | Practicals<br>Tutorials  | Tests          |                                             |                                                                               |  |
| 3                  |                          |                |                                             |                                                                               |  |
| Month: Marc        | ch                       |                | Elasticity                                  | Determination of Young's modulus,                                             |  |
| Teaching Days 26   |                          | 26             |                                             | modulus of regidity, Searles method                                           |  |
| Periods Allotted 3 |                          | 3              |                                             |                                                                               |  |
| Periods Availa     | able                     |                |                                             |                                                                               |  |
| Teaching           | Practical:<br>Tutorial:  | Pete           |                                             |                                                                               |  |
| 3                  |                          |                |                                             |                                                                               |  |

Sign of the Teacher

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IQAC CO-ORDINATOR

Y. C. COLLEGE, ISLAN

Sign of the Principal

Principal

#### YASHWANTRAO CHAVAN MAHAVIDYALAYA,ISLAMPUR ANNUAL TEACHING PLAN

#### 2020-21

Teachers Name: Mrs. Neha N. Sali

Subject : Mathematics

Class

: B. Sc. Part I(Sem-I)

Paper No: DSC-5A

Paper Title: Differential Calculus

|                    |                          |       | Topic /Unit                                          | Sub-units Planned                                  |
|--------------------|--------------------------|-------|------------------------------------------------------|----------------------------------------------------|
| Month: Novem       | ber                      |       | Unit1:Hyperbolic                                     | De- Moivre's                                       |
| Teaching Days      |                          | 17    | Functions                                            | Theorem. Applictions                               |
| Periods Allotted   |                          | 10    |                                                      | of the above theorem                               |
| Periods Available  |                          |       | Hyperbolic functions                                 |                                                    |
| Teaching           | Practicals/<br>Tutorials | Tests |                                                      |                                                    |
| 10                 | -                        |       |                                                      |                                                    |
| Month: Decem       | ber                      |       | Unit1:Hyperboli c                                    | Inverse                                            |
| Teaching Days      |                          | 26    | Functions CCPM                                       | Hyperbolic                                         |
| Periods Allotted   | i                        | 14    | I-<br>Application of                                 | functions                                          |
| Periods Availab    | le                       |       | De Moivre's                                          | Relations between                                  |
| Teaching           | Practicals/<br>Tutorials | Tests | Theorem                                              | hyperbolic and circularfunctions                   |
| 10                 | 4                        |       |                                                      |                                                    |
| Month: Janua       | ry                       |       | Unit1:Higher order                                   | Successive                                         |
| Teaching Days      |                          | 24    | DerivativesCCPM I- Examples on                       | Differentiatio<br>n.                               |
| Periods Allotted   |                          | 14    |                                                      |                                                    |
| Periods Availab    | ole                      | -     | Leibnitz's Theorem                                   | Leibinitz's Theorem Partial Differentiation.       |
| Teaching           | Practicals/<br>Tutorials | Tests |                                                      |                                                    |
| 10                 | 04                       |       |                                                      |                                                    |
| Month: Febru       | ary                      |       | Unit2:The Real numbers                               | 2.4. Euler's Theorem                               |
| Teaching Days      |                          | 24    | CCPM I- Examples on                                  | Maxima and Minima forfunction of two               |
| Periods Allotte    |                          | 19    | Euler's Theorem CCPM I- Maxima & minima              |                                                    |
| Periods Availab    | ole                      | 20000 | of function of two variables                         | variablesLagrange's                                |
| Teaching           | Practicals/<br>Tutorials | Tests | An acceptance (percent)                              | Method of undetermined multipliers.                |
| 11                 | 8                        |       |                                                      |                                                    |
| Month: March       | 1                        |       | Unit2:The Real numbers                               | 2.4. Euler's Theorem                               |
| Teaching Days      | 91                       | 25    | CCPM I- Maxima & minima of function of two variables | Maxima and Minima for<br>function of two variables |
| Periods Allotted 1 |                          | 15    | of function of twovariables                          | Lagrange's Method of                               |
| Periods Available  |                          |       | undetermined multipliers.                            |                                                    |
| Teaching           | Practicals/<br>Tutorials | Tests | 8                                                    |                                                    |
| 11                 | 4                        |       |                                                      |                                                    |

Sign of the Teacher

Sign of the Head

Sign of the Proposal

Yashwantrao Chavan Mahavidyalava URUN-ISLAMPUR, (Dist. Sang

IQAC CO-ORDINATOR

### YASHWANTRAO CHAVAN MAHAVIDYALAYA, ISLAMPUR ANNUAL TEACHING PLAN

#### 2020-21

Teachers Name: Jadhav Megharani Chandrakant

Subject : Mathematics

Class

: B. Sc. Part I (Sem I)

Paper No: II

Paper Title: Calculus(6A)

|                   |                          |                   | Topic /Unit                         | Sub-units Planned                                                                                                                                                                                                                                                          |  |  |
|-------------------|--------------------------|-------------------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Month: Nov        | ember                    |                   | Unit – 1: - Mean                    | <ul> <li>Rolle's Theorem,</li> </ul>                                                                                                                                                                                                                                       |  |  |
| Teaching Da       | ys                       | 17                | Value Theorems and                  | <ul> <li>Geometrical</li> </ul>                                                                                                                                                                                                                                            |  |  |
| Periods Allot     |                          | 13                | Indeterminate Forms                 | interpretation of Rolle's                                                                                                                                                                                                                                                  |  |  |
| Periods Available |                          | CCPM-I:- Examples | Theorem and Examples                |                                                                                                                                                                                                                                                                            |  |  |
| Teaching          | Practicals/<br>Tutorials | Tests             | on Lagrange's Mean<br>Value Theorem | <ul> <li>on Rolle's Theorem.</li> <li>Lagrange's Mean Value Theorem, Geometrical interpretation of LMVT and Examples</li> <li>Cauchy's Mean Value Theorem and Examples on it</li> <li>Taylor's Theorem with Lagrange's and Cauchy's form of remainder, Examples</li> </ul> |  |  |
| . 5               | 4                        |                   |                                     |                                                                                                                                                                                                                                                                            |  |  |
| Month: Dec        | ember                    | 26                |                                     | Maclarin's Theorem                                                                                                                                                                                                                                                         |  |  |
| Teaching Da       | Teaching Days            |                   |                                     | with Lagrange's and                                                                                                                                                                                                                                                        |  |  |
| Periods Allo      | tted                     | 14                |                                     | Cauchy's form of remainder, Examples  • Maclarin's series for sin                                                                                                                                                                                                          |  |  |
| Periods Avai      | ilable                   |                   | CCPM-I:- Examples on                |                                                                                                                                                                                                                                                                            |  |  |
| Teaching          | Practicals/<br>Tutorials | Tests             | Cuachy's Mean Value Theorem         | <ul> <li>x, cos x, e<sup>x</sup>, log (1+x), (1+x)<sup>m</sup>.</li> <li>Indeterminate Forms and Examples on it.</li> <li>L'Hospital Rule-Theorem &amp; Examples.</li> </ul>                                                                                               |  |  |
| 10                | 4                        |                   |                                     |                                                                                                                                                                                                                                                                            |  |  |
| Month: Jan        | uary                     |                   | Unit 2- Limits                      | <ul> <li>ε-δ definition of limit o</li> </ul>                                                                                                                                                                                                                              |  |  |
| Teaching Da       | iys                      | 24                | and Continuity of                   | function of one variable Left hand side limits and                                                                                                                                                                                                                         |  |  |
| Periods Allo      | tted                     | 14                | Real Valued Function                |                                                                                                                                                                                                                                                                            |  |  |
| Periods Available |                          | CCPM-I:-          | Right hand side limits.             |                                                                                                                                                                                                                                                                            |  |  |
| Teaching          | Practicals/<br>Tutorials | Tests             | L'Hospital's rule                   | Theorems on Limits,<br>Continuous Functions<br>and Their Properties                                                                                                                                                                                                        |  |  |

| 10  Month: Feb Teaching Da Periods Allot Periods Avai | ys<br>tted               | 24<br>14 |                                           | <ul> <li>Types of Discontinuities and Examples on it.</li> <li>Examples</li> <li>Differentiability at a point, Left hand</li> </ul> |
|-------------------------------------------------------|--------------------------|----------|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Teaching                                              | Practicals/<br>Tutorials | Tests    | CCPM-I:- Examples on<br>Differentiability | derivative, Right hand derivative,                                                                                                  |
| 10                                                    | 4                        |          |                                           |                                                                                                                                     |
| Month: Ma                                             |                          | T ===    |                                           | Differentiability in the                                                                                                            |
| Teaching Da                                           |                          | 25       | -                                         | <ul><li>interval [a, b].</li><li>Theorem: Continuity is</li></ul>                                                                   |
| Periods Allo                                          |                          | 10       |                                           | necessary but not a                                                                                                                 |
| Teaching .                                            | Practicals/<br>Tutorials | Tests    |                                           | sufficient condition for the existence of a derivative.  • Theorems.                                                                |
| 10                                                    |                          |          |                                           |                                                                                                                                     |

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Sign of the Principal

Principal

Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang

1QAC CO-ORDINATOR Y. C. COLLEGE, ISLAMPUR



Teachers Name: Miss. P. V. Patil.

Subject : Chemistry

Class : B.Sc Part-I (Sem - I) Paper Title : Inorganic Chemistry

| Paper No: I                          |                          |       | Paper Title : Inorganic Chemistry                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
|--------------------------------------|--------------------------|-------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
|                                      |                          |       | Topic /Unit                                                                       | Sub-units Planned                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |
| Month: November                      |                          |       | 1. Atomic Structure &                                                             | Bohr's theory of Hydrogen atom,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| Teaching Day                         | 'S                       | 6     | Periodicity of Elements                                                           | Wave particle duality, Heisenberg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |
| Periods Allotted 5                   |                          |       | Uncertainty Principle, Quantum                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| Periods Available                    |                          |       | Numbers & significance                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| Teaching                             | Practicals/<br>Tutorials | Tests |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| Marshi Daga                          |                          |       | 1 Atamia Structura 9                                                              | Electrons filling rules, Stability of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |
| Month: Dece                          |                          | 16    | 1. Atomic Structure &                                                             | empty, half-filled & completely                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| Teaching Day<br>Periods Allott       |                          |       | Periodicity of Elements                                                           | filled orbitals, Periodicity of s-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |
|                                      | 0.1900000                | 15    |                                                                                   | block elements- Electronic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |
| Periods Avail                        |                          |       | -                                                                                 | configuration & Properties                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |
| Teaching                             | Practicals/<br>Tutorials | Tests |                                                                                   | configuration & Properties                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |
|                                      |                          | 1     |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| Month: Janu                          |                          |       | 2. Chemical Bonding and                                                           | Definition and formation of ionic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |
| Teaching Days 14 Periods Allotted 13 |                          | 14    | Molecular structure (A)                                                           | bond. General characteristics of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |
|                                      |                          | 13    | Ionic Bonding                                                                     | ionic bonding, Energetic in Ionic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |
| Periods Avail                        | lable                    |       |                                                                                   | bond formation, Born-Haber cycle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |
| Teaching                             | Practicals/<br>Tutorials | Tests |                                                                                   | for NaCl and its applications,<br>Fajan's Rule,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
|                                      |                          | 1     |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| Month: Febr                          | ruary                    | -     | Chemical Bonding and Molecular structure (A) Ionic Bonding  3. Chemical Bonding & | Applications of Fajan's rule for -<br>Polarizing power and<br>polarizability, Ionic character in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |
| Teaching Day                         |                          | 16    |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| Periods Allot                        |                          | 13    |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| Periods Avai                         | 11.004041                |       |                                                                                   | covalent compounds, Bond                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |
| Teaching                             | Practicals/<br>Tutorials | Tests |                                                                                   | moment, dipole moment and percentage ionic character                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |
|                                      |                          |       | Molecular Structure- VBT                                                          | Concept of Hybridization,<br>Conditions of hybridization,<br>Types of Hybridization                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |
|                                      |                          | 2     |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
|                                      |                          |       | 4. Chemical Bonding &                                                             | The second control of |  |  |
| Month: Mai                           | rch                      |       | Molecular Structure-                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| Teaching Days 14                     |                          | MOT   | ABMO's                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| Periods Allotted 12                  |                          |       | 1. To determine strength of given                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| Periods Available                    |                          |       | oxalic acid solution.                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| Teaching                             | Practicals/<br>Tutorials | Tests | Inorganic chemistry                                                               | 2. To determine quantity of Fe(II) ions from the given solutions by titrating it with 0.1 N K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> solution by using internal indicator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |
|                                      | 2                        | 1     |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |

Sign of the Teacher

**IQAC CO-ORDINATOR** 

Y. C. COLLEGE, ISLAMPUR

Sign of the Head



Teachers Name: Miss. P. V. Patil

Subject : Chemistry

Class : B.Sc Part - I (Sem I)
Paper Title : Inorganic Chemistry

| nor No. I     | ilisti y                 |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Paper Title: Inorganic Chemistry                                                                                                                                                                    |
|---------------|--------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| per No: I     |                          |       | II TANK TO SERVICE THE SERVICE |                                                                                                                                                                                                     |
|               |                          |       | Topic /Unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Sub-units Planned                                                                                                                                                                                   |
| Month: Apri   |                          |       | 4. Chemical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Conditions for overlap, Types of                                                                                                                                                                    |
| Teaching Day  |                          | 14    | Bonding &                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | overlaps, Energy level sequence for                                                                                                                                                                 |
| Periods Allot | Marian III               | 14    | Molecular                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | MO n=1, n=2, MO diagrams fo                                                                                                                                                                         |
| Periods Avai  | lable                    |       | Structure- MOT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | homo & hetero-nuclear diatomi                                                                                                                                                                       |
| Teaching      | Practicals/<br>Tutorials | Tests | Inorganic<br>Chemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | molecules with examples  1. Estimation of amount of acetic aci from given vinegar sample.  2. Quality control-To determin percentage purity of given soda as sample Na <sub>2</sub> CO <sub>3</sub> |
|               | 2                        | 1     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                     |
| Month: May    | 100                      | 1.2   | Physical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1. Determination of Equivalent weigh                                                                                                                                                                |
| Teaching Da   |                          | 15    | Chemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | of Mg by Eudiometer.                                                                                                                                                                                |
| Periods Allot |                          | 14    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                     |
| Periods Avai  |                          | 114   | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2. Chemical Kinetics - to determine specific reaction rate of hydrolysis of                                                                                                                         |
| renous Avai   | lable                    |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                     |
| Teaching      | Practicals/<br>Tutorials | Tests |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | methyl acetate in presence of HCl                                                                                                                                                                   |
|               | 2                        |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                     |
| Month: Jun    | e                        | 1     | Physical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1. Determination of heat of ionization                                                                                                                                                              |
| Teaching Da   |                          | 17    | Chemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | of weak acid.                                                                                                                                                                                       |
| Periods Allo  |                          | 16    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2. Determination of enthalpy of                                                                                                                                                                     |
| Periods Avai  |                          | 1     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                     |
| Teaching      | Practicals/<br>Tutorials | Tests |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | neutralization hydroxide of<br>hydrochloric acid with sodium                                                                                                                                        |
|               | 2                        |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                     |
| Month: July   | 7                        |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1. Determination of integral enthal                                                                                                                                                                 |
| Teaching Da   | iys                      | 14    | Physical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | of solution of salts (NH4Cl, KNO3)                                                                                                                                                                  |
| Periods Allo  | tted                     | 14    | Chemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                     |
| Periods Ava   | ilable                   |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                     |
| Teaching      | Practicals/<br>Tutorials | Tests |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                     |
| Month: Aus    | ruct                     | 1     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                     |
| Teaching Da   |                          | 13    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                     |
| Periods Allo  |                          | 12    | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                     |
| Periods Ava   | CALCO A CALC             | 12    | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                     |
| Teaching      | Practicals/              | Tests |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                     |
|               | Tutorials                |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                     |

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**IQAC CO-ORDINATOR** 

Y. C. COLLEGE, ISLAMPUR

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Principal

# YASHWANTRAO CHAVAN MAHAVIDYALAY, ISLAMPUR ANNUAL TEACHING PLAN 2020-21

Teachers Name : Jagatap Nilesh Ramesh

Subject : Computer Science

Paper No: DSC-11A

Class : B. Sc. Part I (Sem - I)

Paper Title: Problem Solving using Computers

| Paper No: DS       | C-IIA                    |       | Paper Title: Problem                                  | <b>Solving using Computers</b>                                                                                                                                                    |
|--------------------|--------------------------|-------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    |                          |       | Topic /Unit                                           | Sub-units Planned                                                                                                                                                                 |
| Month: Dec         |                          |       | Unit – 1: - Problem                                   | • (A) Planning the                                                                                                                                                                |
| Teaching Days      |                          | 26    | Solving Using Computers                               | Computer Program:                                                                                                                                                                 |
| Periods Allotted 4 |                          | 4     |                                                       | Concept of problem                                                                                                                                                                |
| Periods Avai       | lable                    |       |                                                       | solving, Problem definition,                                                                                                                                                      |
| Teaching           | Practicals/<br>Tutorials | Tests |                                                       | Program design, Debugging, (B) Logical Continuum of Program of Programming: Language, Introduction to GCC Compiler,                                                               |
| 3                  | 1                        |       |                                                       |                                                                                                                                                                                   |
| Month: Jan         |                          |       |                                                       | <ul> <li>Used to the Data Types ,</li> </ul>                                                                                                                                      |
| Teaching Da        |                          | 25    |                                                       | Built-In Standard Library,                                                                                                                                                        |
| Periods Allo       | tted                     | 4     |                                                       | Nitty-Gritty of                                                                                                                                                                   |
| Periods Avai       | lable                    | Ar    |                                                       | Programming,                                                                                                                                                                      |
| Teaching           | Practicals/<br>Tutorials | Tests |                                                       | <ul> <li>structures, Algorithm, Pseudocode, Procedure, Program, C Program Structure, Vi Editor,</li> <li>Whittling the First 'C' Program, Working,</li> <li>Sequences.</li> </ul> |
| 2                  | 2                        |       |                                                       |                                                                                                                                                                                   |
| Month: Feb         | ruary                    |       | Unit – II: Control                                    | (A) Decision Making and                                                                                                                                                           |
| Teaching Da        | ys                       | 22    | Structures and Arrays                                 | Looping Constructs:                                                                                                                                                               |
| Periods Allot      | tted                     | 6     |                                                       | Introduction, The if                                                                                                                                                              |
| Periods Avai       | lable                    |       |                                                       | Statement, The if-else                                                                                                                                                            |
| Teaching           | Practicals/<br>Tutorials | Tests |                                                       | <ul> <li>Statement, Nested ifelse, The Switch Case Statement, The while Loop, The odd Loop(do</li> <li>while), the for Loop, Loop Control Statements, Infinite Loop.</li> </ul>   |
| 4                  | 2                        |       |                                                       |                                                                                                                                                                                   |
| Month: Mar         | ch                       |       |                                                       | (B) Arrays: Features,                                                                                                                                                             |
| Teaching Days      |                          | 26    |                                                       | Definition, Types of                                                                                                                                                              |
| Periods Allotted   |                          | 5     |                                                       | Arrays, Single-                                                                                                                                                                   |
| Periods Available  |                          |       | Dimensional Array, Two-     Dimensional Array, Multi- |                                                                                                                                                                                   |
| Teaching           | Practicals/<br>Tutorials | Tests |                                                       | <ul> <li>Dimensional Array, Multi-<br/>Dimensional Array.</li> </ul>                                                                                                              |
| 4                  | 1                        |       |                                                       | Zatto                                                                                                                                                                             |
| ~8                 | 0                        |       | S. MURU                                               | 7                                                                                                                                                                                 |

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IOAC CO-ORDINATOR

# YASHWANTRAO CHAVAN MAHAVIDYALAYA, ISLAMPUR ANNUAL TEACHING PLAN 2020-21

Teachers Name: Miss. A.P.Dhotre

Subject : physics

Paper No: I

Class: B.Sc Part - I (Sem - I)
Paper Title: MECHANICS-I

|                   |                          |       | Topic /Unit              | Sub-units Planned                                                         |  |
|-------------------|--------------------------|-------|--------------------------|---------------------------------------------------------------------------|--|
| Month: Nove       | ember                    |       | 1. Vectors               | Vector algebra, Scalar                                                    |  |
| Teaching Days     |                          | 17    |                          | and vector products,                                                      |  |
| Periods Allotted  |                          | 2     |                          |                                                                           |  |
| Periods Available |                          |       |                          |                                                                           |  |
| Teaching          | Practicals/<br>Tutorials | Tests |                          |                                                                           |  |
| 2                 |                          |       |                          |                                                                           |  |
| Month: Deco       | ember                    |       | 1. Vectors               | Derivatives of a vector                                                   |  |
| Teaching Day      | ys                       | 26    |                          | with respect to a                                                         |  |
| Periods Allot     | ted                      | 4     |                          | parameter (velocity and                                                   |  |
| Periods Avai      | lable                    |       |                          | acceleration).                                                            |  |
| Teaching          | Practicals/<br>Tutorials | Tests |                          |                                                                           |  |
| 4                 |                          |       |                          |                                                                           |  |
| Month: Janu       | uary                     |       | 2. Ordinary Differential | Differential equation;<br>ordinary and partial<br>differential equations, |  |
| Teaching Da       | ys                       | 24    | Equations:               |                                                                           |  |
| Periods Allot     | tted                     | 3     |                          |                                                                           |  |
| Periods Avai      | lable                    |       |                          |                                                                           |  |
| Teaching          | Practicals/<br>Tutorials | Tests |                          |                                                                           |  |
| 3                 |                          |       |                          |                                                                           |  |
| Month: Feb        | ruary                    |       | .Ordinary Differential   | 1st order homogeneous                                                     |  |
| Teaching Da       | ys                       | 24    | <b>Equations:</b>        | differential equations,                                                   |  |
| Periods Allo      | Periods Allotted 3       |       |                          | 8                                                                         |  |
| Periods Avai      | ilable                   |       |                          |                                                                           |  |
| Teaching          | Practicals/<br>Tutorials | Tests |                          |                                                                           |  |
| 3                 | -                        |       |                          |                                                                           |  |

| Month: March                      |                          |       | <b>Ordinary Differential</b> | 2nd order homogeneous  |
|-----------------------------------|--------------------------|-------|------------------------------|------------------------|
| Teaching Days<br>Periods Allotted |                          | 26    | <b>Equations:</b>            | differential equations |
|                                   |                          | 2     |                              | with constant          |
| Periods Available                 |                          |       | Coefficients. Examples       |                        |
| Teaching                          | Practicals/<br>Tutorials | Tests |                              |                        |
| 2                                 |                          |       |                              |                        |

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IQAC CO-ORDINATOR Y. C. COLLEGE, ISLAMPUR OVER BY DE STATE OF THE PROPERTY OF THE PROPER

Principal
Yashwantrao Chavan Mahavidyalava

URUN-ISLAMPUR, (Dist. Sang

Teachers Name: Mr.S.K.Patil.

Subject : Chemistry Class : B.Sc Part-I (Sem - I)

Paper No: I Paper Title: Organic chemistry

|                               |                                                                                                                                                             | Topic /Unit                                                                                                                                                                                                                                                                                                                                                                                             | Sub-units Planned                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| mber                          |                                                                                                                                                             | Fundamentals of organic                                                                                                                                                                                                                                                                                                                                                                                 | Curved Arrow Notations,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| rs 15                         |                                                                                                                                                             | chemistry                                                                                                                                                                                                                                                                                                                                                                                               | Cleavage of Bonds,Organic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| ed 8                          |                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                         | molecular species,<br>Electronic Displacements,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| able                          |                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                         | Reactivate intermediates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Practicals/<br>Tutorials      | Tests                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                         | Exercises                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 2                             |                                                                                                                                                             | Organic chemistry                                                                                                                                                                                                                                                                                                                                                                                       | Identification of organic<br>compound 1) Oxalic acid<br>2) B- napthol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| mber                          |                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| /S                            |                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                               |                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                               |                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Practicals/<br>Tutorials      | Tests                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 04                            |                                                                                                                                                             | Organic chemistry                                                                                                                                                                                                                                                                                                                                                                                       | Identification of organic<br>compound 3) Thiourea. 4)<br>Aniline. 5) Chloroform 6)<br>Benzoic acid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| iary                          |                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                         | 1)Preparation o                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Month: January Feaching Days  |                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                         | std.KMnO4 and determine<br>strength of given Oxalic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Periods Allotted              |                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| lable                         |                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                         | acid solution. 2)To                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Practicals/<br>Tutorials<br>4 | Tests                                                                                                                                                       | Inorganic chemistry  Physical chemistry                                                                                                                                                                                                                                                                                                                                                                 | determinate Fe(II) ions from the given solution by titration with 0.1N K2Cr2O7  1) Determine Eq.Wt. of My by Eudiometer  2) Hydrolysis of methy acetate in presence of 0.1N HCI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| ruary                         |                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                         | D. Formation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| ys                            |                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                         | 1) Estimation of Asparin.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Periods Allotted              |                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                         | 2) Estimation o                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| lable                         |                                                                                                                                                             | Organic Chemistry                                                                                                                                                                                                                                                                                                                                                                                       | Acetamide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Practicals/<br>Tutorials      | Tests                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                         | Revision     identification organic compound                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                               | ruary ys ted  Practicals/ Tutorials  2  mber /s ted able  Practicals/ Tutorials  04  Practicals/ Tutorials  4  ruary ys ted lable  Practicals/ Tutorials  4 | ruary ys ted lable  Practicals/ Tutorials  Tests  Tests | chemistry  chemistry  chemistry  chemistry  chemistry  chemistry  Chemistry  Chemistry  Chemistry  Corganic chemistry |

**IQAC CO-ORDINATOR** 

Dept. Of Chemistry Yashwantrao Chavan Mahavidyalaya, C. College, Islampur

#### 2020-21

Teachers Name: Ms. K. H. Nardekar

Subject: Chemistry

Class: B.Sc. Part - 1 (Sem II)

Paper No: III

Paper Title: Physical Chemistry

|                 |                          |            | Topic /Unit                                          | Sub-units Planned                                                                                                                                                                                                                                         |  |
|-----------------|--------------------------|------------|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Month: Apri     | il                       |            | Chemical                                             | A) Thermodynamics- Introduction                                                                                                                                                                                                                           |  |
| Γeaching Days 6 |                          | Energetics | <ul> <li>Basic concepts of Thermodynamics</li> </ul> |                                                                                                                                                                                                                                                           |  |
| Periods Allot   | ted                      | 6          |                                                      | <ul> <li>Spontaneous and non-spontaneous</li> </ul>                                                                                                                                                                                                       |  |
| Periods Avai    | lable                    |            |                                                      | processes                                                                                                                                                                                                                                                 |  |
| Teaching        | Practicals/<br>Tutorials | Tests      |                                                      | <ul> <li>Carnot's cycle and its efficiency</li> <li>Concepts of Entropy</li> <li>Third law of Thermodynamics</li> </ul>                                                                                                                                   |  |
| 6               |                          |            |                                                      |                                                                                                                                                                                                                                                           |  |
| Month: May      | 7                        |            | Chemical                                             | (B) Thermochemistry- Importan                                                                                                                                                                                                                             |  |
| Teaching Day    | ys                       | 25         | Energetics                                           | principles & definitions of                                                                                                                                                                                                                               |  |
| Periods Allot   | ted                      | 6          |                                                      | Thermochemistry                                                                                                                                                                                                                                           |  |
| Periods Avai    | lable                    | 1          |                                                      | • Integral and differential enthalpy of                                                                                                                                                                                                                   |  |
| Teaching        | Practicals/<br>Tutorials | Tests      |                                                      | <ul> <li>Variation of enthalpy of reaction w<br/>temperature</li> <li>Exercises</li> </ul>                                                                                                                                                                |  |
| 6               |                          | 1          |                                                      |                                                                                                                                                                                                                                                           |  |
| Month: Jun      | e                        |            | Chemical                                             | Introduction                                                                                                                                                                                                                                              |  |
| Teaching Da     | ys                       | 25         | Kinetics                                             | • Rate of a reaction                                                                                                                                                                                                                                      |  |
| Periods Allo    | tted                     | 6          |                                                      | Order & molecularity of reaction                                                                                                                                                                                                                          |  |
| Periods Avai    | ilable                   |            |                                                      | First order reactions                                                                                                                                                                                                                                     |  |
| Teaching        | Practicals/<br>Tutorials | Tests      |                                                      | <ul> <li>Pseudo-Unimolecular reactions</li> <li>Second order reaction</li> <li>Determination of order of reaction</li> <li>Effect of temperature on the rate of reaction</li> <li>Theories of reaction rate</li> <li>Solved numerical problems</li> </ul> |  |
| 6               |                          | 1          |                                                      |                                                                                                                                                                                                                                                           |  |
| Month: July     | y                        |            | Kinetic theory of                                    | • Introduction                                                                                                                                                                                                                                            |  |
| Teaching Da     | Teaching Days 23         |            | Gases                                                | • Postulates or assumptions of Kinet                                                                                                                                                                                                                      |  |
| Periods Allo    | Periods Allotted 6       |            |                                                      | theory of gases                                                                                                                                                                                                                                           |  |
| Periods Ava     | ilable                   | 1          |                                                      | Derivation of Kinetic gas equation                                                                                                                                                                                                                        |  |
| Teaching        | Practicals/<br>Tutorials | Tests      |                                                      | <ul> <li>Ideal and non-ideal gases</li> <li>Derivations of real gases from ide<br/>behavior</li> </ul>                                                                                                                                                    |  |

| 5                  |                          |            |                    | Compressibility factor     Causes of deviations from gas laws                                             |
|--------------------|--------------------------|------------|--------------------|-----------------------------------------------------------------------------------------------------------|
| Month: Aug         | gust                     |            | Kinetic theory of  | • Van der waal's equation of state for real                                                               |
| Teaching Days 25   |                          | 25         | Gases              | gases                                                                                                     |
| Periods Allotted 5 |                          | • Critical | Critical phenomena |                                                                                                           |
| Periods Avai       | Periods Available        |            |                    | Relationship between critical constants                                                                   |
| Teaching           | Practicals/<br>Tutorials | Tests      |                    | and Van der waal's constants     Maxwell-Boltzmann distribution laws of molecular velocities and energies |
| 4                  |                          | 1          |                    |                                                                                                           |

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# YASHWANTRAO CHAVAN MAHAVIDYALAYA, ISLAMPUR ANNUAL TEACHING PLAN 2020-21

Name

: Ms. A. A. Patil

Subject : Physics

Class

: B.Sc. Part - I (Sem I)

Paper No: II

Paper Title

: Mechanics -II



|                                 |                                      |           | Topic /Unit                                                                                            | Sub-units Planned                               |
|---------------------------------|--------------------------------------|-----------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| Month: No                       |                                      |           | Unit - III                                                                                             | Basic concepts, Simple                          |
| Teaching Days 17                |                                      | 2 0 111 1 | harmonic motion                                                                                        |                                                 |
| Periods All                     | otted                                | 5         | 2. Oscillations                                                                                        | motion                                          |
| Periods Ava                     | ailable                              |           | LAB-B                                                                                                  |                                                 |
| Teaching                        | Practical's/<br>Tutorials            | Tests     | 1. Measurements of length (or diameter) using vernier calliper, screw gauge and Travelling microscope. |                                                 |
| 1                               | 4                                    |           |                                                                                                        |                                                 |
| Month: De                       | cember                               |           | 2. Oscillations                                                                                        | Differential equation of SHM and its solutions, |
| Teaching Da                     | ays                                  | 26        |                                                                                                        |                                                 |
| Periods Allo                    | Periods Allotted                     |           | 2.To study the Motion of                                                                               | Kinetic and<br>Potential Energy                 |
| Periods Ava                     | Periods Allotted 6 Periods Available |           | a Spring and calculate (a)                                                                             |                                                 |
| Teaching Practical's/ Tutorials |                                      | Tests     | Spring Constant (b) Value of g.                                                                        |                                                 |
| 2                               | 4                                    |           |                                                                                                        |                                                 |
| Month: Jan                      | uary                                 |           | 2. Oscillations                                                                                        | Total Energy and their                          |
| Teaching Da                     | iys                                  | 24        |                                                                                                        | time averages,                                  |
| Periods Allo                    | tted                                 | 5         | 3. To determine g by Bar                                                                               |                                                 |
| Periods Available               |                                      | Pendulum. |                                                                                                        |                                                 |
| Teaching                        | Practical's/<br>Tutorials            | Tests     |                                                                                                        |                                                 |

| 1            | 4                         |       |                           |                      |  |
|--------------|---------------------------|-------|---------------------------|----------------------|--|
| Month: Fel   | bruary                    |       | 2. Oscillations           | Damped oscillations. |  |
| Teaching D   | ays                       | 24    |                           | Damped oscillations. |  |
| Periods Allo | otted                     | 5     | 4.To determine g by       |                      |  |
| Periods Ava  | ilable                    |       | Kater's Pendulum          |                      |  |
| Teaching     | Practical's/<br>Tutorials | Tests |                           |                      |  |
| 1            | 4                         |       | •                         |                      |  |
| Month: Ma    | rch                       |       | 2. Oscillations           | Forced Oscillations. |  |
| Teaching Da  | ays                       | 26    |                           | Numericals.          |  |
| Periods Allo | tted                      | 5     | 5. Poission ratio for     |                      |  |
| Periods Ava  | Periods Available         |       | rubber using rubber tube. |                      |  |
| Teaching     | Practical's/<br>Tutorials | Tests |                           |                      |  |
| 1            | 4                         |       |                           |                      |  |

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### YASHWANTRAO CHAVAN MAHAVIDYALAYA, ISLAMPUR ANNUAL TEACHING PLAN

#### 2020-21

Teachers Name: Miss. Jadhav Megharani Chandrakant

Subject : Mathematics

Paper No: III

Class

: B. Sc. Part I (Sem II)

Paper Title: Differential Equations

|                     |                          | *************************************** | Topic /Unit                           | Sub-units Planned                                                                        |
|---------------------|--------------------------|-----------------------------------------|---------------------------------------|------------------------------------------------------------------------------------------|
| Month: Apri         | i                        |                                         | Unit 1: Differential                  | • Differential Equations of                                                              |
| Teaching Days 17    |                          | 17                                      | Equations of First                    | First Order and First                                                                    |
| Periods Allot       | ted                      | 14 Order                                | Degree.                               |                                                                                          |
| Periods Avail       | lable                    |                                         | of Curvature for                      | 1. Exact Differential                                                                    |
| Teaching            | Practicals/<br>Tutorials | Tests                                   | Cartesian curve                       | Equations. 2. Linear Differential Equations 3. Bernoulli's Equation.                     |
| 10                  | 4                        |                                         |                                       |                                                                                          |
| Month: May          | 7                        | **                                      |                                       | <ul> <li>Differential</li> </ul>                                                         |
| Teaching Day        | ys                       | 25                                      | CCPM-I:- Examples on                  | <b>Equations of First</b>                                                                |
| Periods Allot       | ted                      | 14                                      | Exact Differential Equation           | Order but Not of Firs                                                                    |
| Periods Avai        | lable                    | *                                       | CCPM-I:- Examples on                  | Degree 1. Clairaut's Form 2. Equations Reducible to Clairaut's Form.                     |
| Teaching            | Practicals/<br>Tutorials | Tests                                   | Clairaut's Form                       |                                                                                          |
| 10                  | 4                        |                                         |                                       |                                                                                          |
| Month: June         | e                        | 0                                       | Unit 2: Linear Differential Equations | Linear Differential<br>Equations with                                                    |
| Teaching Da         | ys                       | 26                                      |                                       |                                                                                          |
| Periods Allot       | tted                     | 15                                      | CCPM-I:- Examples                     | Constant Cofficients                                                                     |
| Periods Avai        | lable                    |                                         | on LDE's with Constant Coefficient's. |                                                                                          |
| Teaching            | Practicals/<br>Tutorials | Tests                                   | Constant Coefficient's.               |                                                                                          |
| 11                  | 4                        | 8                                       |                                       |                                                                                          |
| Month: July         | 7                        |                                         |                                       | Homogeneous Linea                                                                        |
| Teaching Da         | ys                       | 26                                      |                                       | Differential                                                                             |
| Periods Allotted 10 |                          | 10                                      |                                       | Equations (The Cauchy-Euler                                                              |
| Periods Available   |                          |                                         | Equations)                            |                                                                                          |
| Teaching            | Practicals/<br>Tutorials | Tests                                   |                                       | Legendre's     LinearEquations.     Method of Solution of     Legendre's Linear Equation |
| 10                  |                          |                                         |                                       |                                                                                          |

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# YASHWANTRAO CHAVAN MAHAVIDYALAYA,ISLAMPUR ANNUAL TEACHING PLAN 2020-21

Teachers Name: Mrs. Neha N. Sali

Subject : Mathematics

Class

: B. Sc. Part I (Sem II)

Paper No: DSC-6B

Paper Title: Higher Order Ordinary Differential Equations and Partial Differential Equations

|                    |                          |                     | Topic /Unit                            | Sub-units Planned                                                |
|--------------------|--------------------------|---------------------|----------------------------------------|------------------------------------------------------------------|
| Month: Apr         | il                       |                     | UNIT 1: Linear                         | Introduction, Method of                                          |
| Teaching Days      |                          | 17                  | Differential Equations                 | solution Examples of second                                      |
| Periods Allot      | tted                     | 10                  | CCPM I-                                | order linear differential                                        |
| Periods Avai       | lable                    |                     | Simultaneous                           | equations                                                        |
| Teaching           | Practicals/<br>Tutorials | Tests               | differential equations                 | Simultaneous differential equations                              |
| 6                  | 4                        |                     |                                        |                                                                  |
| Month: May         | 7                        |                     | UNIT 1: Linear                         | Methods of solving and                                           |
| Teaching Da        | ys                       | 25                  | Differential Equations                 | types of Ordinary                                                |
| Periods Allot      | tted                     | 14                  | CCPM I- Total                          | Simultaneous Differential equations                              |
| Periods Avai       | lable                    | •                   | differential equations                 | Geometrical relation between                                     |
| Teaching           | Practicals/<br>Tutorials | Tests               |                                        | total differential and<br>simultaneous differential<br>equations |
| 10                 | 4                        |                     |                                        |                                                                  |
| Month: Jun         | e                        |                     | UNIT 2: Partial Differential Equations | 2.1 Definition, order, degree, formation,                        |
| Teaching Da        | ys                       | 26                  |                                        |                                                                  |
| Periods Allo       | tted                     | 16                  | CCPM I- Radius of                      | examples of PDE                                                  |
| Periods Avai       | lable                    |                     | curvature for parametric curve &       |                                                                  |
| . Teaching         | Practicals/<br>Tutorials | Tests               | polar curve                            |                                                                  |
| 12                 | 4                        |                     |                                        |                                                                  |
| Month: July        | 7                        |                     | UNIT 2: Partial                        | Lagrange's equations and                                         |
| Teaching Da        | ys                       | 26                  | Differential Equations                 | method of solving                                                |
| Periods Allotted 1 |                          | 14                  | CCPM I- Examples                       | Method of solution and                                           |
| Periods Available  |                          | on Charpit's method | examples to solve Charpit's            |                                                                  |
| Teaching           | Practicals/<br>Tutorials | Tests               |                                        | method                                                           |
| 10                 | 4                        |                     |                                        |                                                                  |

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Teachers Name: Mr. S. K. Patil.

Subject : Chemistry

Class

: B.Sc Part - 1 (Sem II)

Paper No: IV

Paper Title: Analytical Chemistry

|                     |                          |       | Topic /Unit                      | Sub-units Planned                                                                                                                                                                         |
|---------------------|--------------------------|-------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: Apr          | il                       |       | 1) Introduction to               | Introduction, Importance of                                                                                                                                                               |
| Teaching Days 1     |                          | 15    | analytical chemistry             | analysis, Analytical                                                                                                                                                                      |
| Periods Allot       | ted                      | 6     |                                  | processes, Methods of                                                                                                                                                                     |
| Periods Avai        | lable                    |       |                                  | analysis, Sampling of                                                                                                                                                                     |
| Teaching            | Practicals/<br>Tutorials | Tests |                                  | solids, liquids and gases.Errors types of errors,Methods of expressing accuracy. Significant figures,Mean, median,standard deviation(Numerical problems)                                  |
| 6                   | 2                        |       | Organic                          | Estimation of Asparin, Estimation of Acetamide.                                                                                                                                           |
| Month: May          | y                        |       | 2. Chromatography                | Principle, Classification basic terms o                                                                                                                                                   |
| Teaching Da         | iys                      | 25    |                                  |                                                                                                                                                                                           |
| Periods Allo        | tted                     | 12    |                                  | chromatography, Pape                                                                                                                                                                      |
| Periods Ava         | ilable                   |       |                                  | chromatography, Thi                                                                                                                                                                       |
| Teaching            | Practicals/<br>Tutorials | Tests | 3.Theory of titrimetric analysis | Layer Chromatography. Important terms, Acid base indicators-Phenolphthalein, Methyl Orange, Theory of indicators-Ostwald's ionization theory Neutralisation curves & Choice of indicators |
| 6                   | 3                        |       | Physical                         | Determination of Eq. Wt. o<br>Mg by Eudiometer<br>Hydrolysis of Methy<br>acetate, Enthalpy o<br>ionization of weak acid.                                                                  |
| Month: Jui          | ne                       |       | 3.Theory of titrimetric          | Compleximetric titrations                                                                                                                                                                 |
| Teaching Days       |                          | 25    | analysis                         |                                                                                                                                                                                           |
| Periods Allotted 12 |                          | 12    |                                  |                                                                                                                                                                                           |
| Periods Ava         | ilable                   |       | 4. Water analysis                | Physical analysis, Chemica<br>analysis-COD and BOD                                                                                                                                        |
| Teaching            | Practicals/<br>Tutorials | Tests |                                  | analysis-COD and DOD                                                                                                                                                                      |

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| 6                 | 3                        |       | Physical                                        | Enthalpy of neutralization,<br>Integral enthalpy of<br>solution of salts, Enthalpy<br>of hydration. |
|-------------------|--------------------------|-------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Month: Juli       | ly                       |       |                                                 | Types of Fertilizers,                                                                               |
| Teaching Da       | ıys                      | 23    |                                                 | Necessity and qualities of                                                                          |
| Periods Allo      | tted                     | 5     | 5.Analysis of fertilizers                       | good fertilizers, sampling and sample preparations,                                                 |
| Periods Ava       | ilable                   | 1     |                                                 |                                                                                                     |
| Teaching          | Practicals/<br>Tutorials | Tests |                                                 |                                                                                                     |
| 3                 | 2                        |       | Inorganic                                       | Paper chromatography a) Ni <sup>2+</sup> + Cu <sup>2+</sup> b) Ni <sup>2+</sup> +Co <sup>2+</sup>   |
| Month: Au         | gust                     |       |                                                 | analysis of                                                                                         |
| Teaching Da       | Teaching Days            |       |                                                 | nitrogen,phosphorus and                                                                             |
| Periods Allotted  |                          | 5     | 5.Analysis of fertilizers                       | potassium, analysis of total                                                                        |
| Periods Available |                          | ~     | nitrogen by kjeldahl's method, Phosphomolybdate |                                                                                                     |
| Teaching          | Practicals/<br>Tutorials | Tests |                                                 | and STPB method                                                                                     |
| 4                 |                          |       |                                                 |                                                                                                     |
|                   |                          |       |                                                 |                                                                                                     |

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# YASHWANTRAO CHAVAN MAHAVIDYALAYA, ISLAMPUR ANNUAL TEACHING PLAN

2020-21

Subject : physics

Class: B.Sc Part - I (Sem - II)

Paper No: IV

Paper Title: ELECTRICITY AND MAGNETISM-II

|                   |                          |       | Topic /Unit      | Sub-units Planned                                                               |
|-------------------|--------------------------|-------|------------------|---------------------------------------------------------------------------------|
| Month: Apri       | Month: April             |       | 1 A.C. Circuits: | Complex numbers and                                                             |
| Teaching Days     |                          | 17    |                  | their application in                                                            |
| Periods Allotted  |                          | 2     |                  | solving a. c. series LCR                                                        |
| Periods Avai      | lable                    |       |                  | circuit,                                                                        |
| Teaching          | Practicals/<br>Tutorials | Tests |                  |                                                                                 |
| 2                 |                          |       |                  |                                                                                 |
| Month:May         | 2                        | 27    | 1 A.C. Circuits  | complex                                                                         |
| Teaching Da       | ys                       | 25    |                  | impedance, Reactance,                                                           |
| Periods Allotted  |                          | 2     |                  | Admittance, and                                                                 |
| Periods Available |                          |       | Susceptance      |                                                                                 |
| Teaching          | Practicals/<br>Tutorials | Tests |                  |                                                                                 |
| 2                 |                          |       |                  |                                                                                 |
| Month: Jun        | e                        |       | 1 A.C. Circuits  | Resonance in LCR series circuit, Sharpness of resonance (qualitative treatment) |
| Teaching Da       | ys                       | 26    |                  |                                                                                 |
| Periods Allo      | tted                     | 3     |                  |                                                                                 |
| Periods Ava       | ilable                   | V4702 |                  |                                                                                 |
| Teaching          | Practicals/<br>Tutorials | Tests |                  | only)                                                                           |
| 3                 |                          |       |                  |                                                                                 |
| Month: July       | 7                        |       | 1 A.C. Circuits  | Q-factor (definition only)                                                      |
| Teaching Days     |                          | 26    |                  | A.C.                                                                            |
| Periods Allotted  |                          | 2     |                  | Bridge - Owens's Bridge                                                         |
| Periods Available |                          |       | A-7-2            |                                                                                 |
| Teaching          | Practicals/<br>Tutorials | Tests |                  |                                                                                 |
| 2                 |                          |       |                  |                                                                                 |

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Subject : Physics

Class: B.Sc. Part - I (Sem - II)

Paper No: VIII

Paper Title: ELECTRICITY AND MAGNETISM-II

|                   |                          |       | Topic /Unit       | Sub-units Planned                                                                             |
|-------------------|--------------------------|-------|-------------------|-----------------------------------------------------------------------------------------------|
| Month: Apri       | il                       |       | Unit III-         | Introduction, Biot savrats                                                                    |
| Teaching Days     |                          | 17    | 2.Magnetism       | law, Ampere circuital law,                                                                    |
| Periods Allot     | ted                      | 5     |                   | Magnetic vector potential.                                                                    |
| Periods Avai      | lable                    |       |                   |                                                                                               |
| Teaching          | Practicals/<br>Tutorials | Tests |                   |                                                                                               |
| 5                 |                          |       |                   |                                                                                               |
| Month:May         | 3                        |       | 1Magnetism        | Magnetic properties of                                                                        |
| Teaching Da       | ys                       | 25    |                   | material, Brif introduction                                                                   |
| Periods Allot     | ted                      | 4     |                   | of diamagnetic,                                                                               |
| Periods Avai      | lable                    |       |                   | paramagnetic, and ferromagnetic materials.                                                    |
| Teaching          | Practicals/<br>Tutorials | Tests |                   |                                                                                               |
| 4                 |                          |       |                   |                                                                                               |
| Month: Jun        | e                        |       | 1.Electromagnetic | Introduction, Faraday's law<br>of Electromagnetic<br>induction, Lenzs law, self<br>induction) |
| Teaching Da       | ys                       | 26    |                   |                                                                                               |
| Periods Allo      | tted                     | 3     |                   |                                                                                               |
| Periods Avai      | ilable                   |       | Induction         |                                                                                               |
| Teaching          | Practicals/<br>Tutorials | Tests |                   |                                                                                               |
| 3                 |                          |       |                   |                                                                                               |
| Month: July       | /                        |       | 1Electromagnetic  | Mutual Induction,                                                                             |
| Teaching Da       | iys                      | 26    | induction         | transformer, energy stored                                                                    |
| Periods Allotted  |                          | 3     |                   | in magnetic field.                                                                            |
| Periods Available |                          |       |                   |                                                                                               |
| Teaching          | Practicals/<br>Tutorials | Tests |                   |                                                                                               |
| 3                 |                          |       |                   |                                                                                               |

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### YASHWANTRAO CHAVAN MAHAVIDYALAYA, ISLAMPUR ANNUAL TEACHING PLAN 2020-21

Teachers Name: Miss. S.D.Kulkarni

Subject: chemistry

Class: B.Sc Part - I (SEM II)

Paper No:

Paper Title:

|                    |                          |                                             | Topic /Unit                                                                                                      | Sub-units Planned |
|--------------------|--------------------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------|
| Month: Apr         | il                       |                                             | Organic Qualitative                                                                                              | Compound 2        |
| Teaching Days 17   |                          | Analysis: Detection of                      |                                                                                                                  |                   |
| Periods Allotted 4 |                          | 4                                           | physical constant, type,                                                                                         |                   |
| Periods Avai       | lable                    |                                             | functional group, elements,and Confirmatory                                                                      |                   |
| Teaching           | Practicals/<br>Tutorials | Tests                                       | test.                                                                                                            |                   |
| -                  | 4                        |                                             |                                                                                                                  |                   |
| Month: May         | 7                        |                                             | Organic Qualitative                                                                                              | Compound 3        |
| Teaching Da        | ys                       | 25                                          | Analysis: Detection of                                                                                           |                   |
| Periods Allo       | tted                     | 4                                           | physical constant, type,                                                                                         |                   |
| Periods Avai       | lable                    |                                             | functional group, elements, and                                                                                  |                   |
| Teaching           | Practicals/<br>Tutorials | Tests                                       | Confirmatory test.                                                                                               |                   |
| -                  | 4                        |                                             |                                                                                                                  |                   |
| Month: Jun         | e                        |                                             | Organic Qualitative Analysis: Detection of physical constant, type, functional group, elements, and Confirmatory | Compound 4        |
| Teaching Da        | ys                       | 26                                          |                                                                                                                  |                   |
| Periods Allo       | tted                     | 4                                           |                                                                                                                  |                   |
| Periods Ava        | ilable                   |                                             |                                                                                                                  |                   |
| Teaching           | Practicals/<br>Tutorials | Tests                                       | test.                                                                                                            |                   |
| ₫                  | 4                        |                                             |                                                                                                                  | ń                 |
| Month: July        | Ÿ                        |                                             | Organic Qualitative                                                                                              | Compound 5        |
|                    |                          | 26                                          | Analysis: Detection of                                                                                           |                   |
| Periods Allotted 4 |                          | 4                                           | physical constant, type,                                                                                         | 18                |
| Periods Available  |                          | functional group, elements,and Confirmatory |                                                                                                                  |                   |
| Teaching           | Practicals/<br>Tutorials | Tests                                       | test.                                                                                                            |                   |
| -                  | 4                        |                                             |                                                                                                                  |                   |

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# YASHWANTRAO CHAVAN MAHAVIDYALAY, ISLAMPUR ANNUAL TEACHING PLAN 2020-21

Teachers Name : Jagatap Nilesh Ramesh

Subject : Computer Science

Paper No: DSC-11B

Class : B. Sc. Part I (Sem - II)

Paper Title: Programming Skills Using 'C'.

|                   |                          |       | Topic /Unit               | Sub-units Planned                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------|--------------------------|-------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: May        |                          |       | Unit – 1: - Pointers and  | • (A)Pointers: Pointer Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Teaching Days     |                          | 26    | Functions:                | Type, Pointer Declaration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Periods Allot     | ted                      | 4     |                           | Pointer Initialization,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Periods Avai      | lable                    | 1     |                           | Arrays and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Teaching          | Practicals/<br>Tutorials | Tests |                           | Pointers, Pointers and<br>One-Dimensional Arrays,<br>Pointers and Two-<br>Dimensional Arrays                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 3                 | 1                        |       |                           | , and the second |
| Month:June        |                          |       |                           | (B)Programming for                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Teaching Day      | ys                       | 25    |                           | Functional Functions:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Periods Allot     | ted                      | 4     |                           | Introduction, Function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Periods Avai      | lable                    |       | -                         | Declaration, Function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Teaching          | Practicals/<br>Tutorials | Tests |                           | <ul> <li>Definition, Function Call,<br/>Nested Functions<br/>Recursion.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 2                 | 2                        |       |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Month: July       |                          | \h.   | Unit - II: Structures and | (A)Structure and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Teaching Day      | ys                       | 22    | File Handling             | Dynamic Memory                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Periods Allot     | ted                      | 6     |                           | Allocation : User-Defined Data Types, Defining  • Structure, Nesting of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Periods Avai      | lable                    | •     |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Teaching          | Practicals/<br>Tutorials | Tests |                           | Structure, Dynamic Memory Allocation,.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 4                 | 2                        |       |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Month: Aug        | ust                      |       |                           | (B)File Handling:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Teaching Da       | ys                       | 26    |                           | Defining and opening a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Periods Allot     | tted                     | 5     |                           | file, File opening modes-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Periods Available |                          |       | read, write, append,      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Teaching          | Practicals/<br>Tutorials | Tests |                           | <ul> <li>closing a file,<br/>Input/Output Operations<br/>on file: getc(), putc(),<br/>getw(), putw(), fprintf(),</li> <li>fscanf(), ftell(), fseek(),<br/>rewind().</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 4                 | 1                        |       |                           | V.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

Sign of the Teacher

**IQAC CO-ORDINATOR** 

Y. C. COLLEGE ISLAMBLID

Sign of the Head

1436 PK

Teachers Name: Ms. K. H. Nardekar

Subject: Chemistry Class: B.Sc. Part - II (Sem III)

Paper No: IV Paper Title: Industrial Chemistry/Practicals

|              |                          |       | Topic /Unit            | Sub-units Planned                                                                                                                                                                                                                                                                         |
|--------------|--------------------------|-------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: Nov   | vember                   |       |                        |                                                                                                                                                                                                                                                                                           |
| Teaching Da  | ays                      |       |                        |                                                                                                                                                                                                                                                                                           |
| Periods Allo | otted                    |       |                        |                                                                                                                                                                                                                                                                                           |
| Periods Ava  | ilable                   |       |                        |                                                                                                                                                                                                                                                                                           |
| Teaching     | Practicals/<br>Tutorials | Tests |                        |                                                                                                                                                                                                                                                                                           |
| Month: Dec   | combor                   |       |                        |                                                                                                                                                                                                                                                                                           |
| Teaching Da  |                          | 25    |                        |                                                                                                                                                                                                                                                                                           |
| Periods Allo |                          | 23    |                        |                                                                                                                                                                                                                                                                                           |
| Periods Ava  | 2001/201                 | 1     | -                      |                                                                                                                                                                                                                                                                                           |
| renous Ava   | Practicals/              |       |                        |                                                                                                                                                                                                                                                                                           |
| Teaching     | Tutorials                | Tests |                        |                                                                                                                                                                                                                                                                                           |
|              | 4                        |       | Physical<br>Chemistry  | Chemical Kinetics I, II,III,IV                                                                                                                                                                                                                                                            |
| Month: Jar   | nuary                    |       |                        |                                                                                                                                                                                                                                                                                           |
| Teaching D   | ays                      | 17    |                        |                                                                                                                                                                                                                                                                                           |
| Periods Alle | otted                    | 16    |                        |                                                                                                                                                                                                                                                                                           |
| Periods Ava  | ailable                  |       |                        |                                                                                                                                                                                                                                                                                           |
| Teaching     | Practicals/<br>Tutorials | Tests |                        |                                                                                                                                                                                                                                                                                           |
|              | 4                        | 1     | Inorganic<br>Chemistry | 1)Gravimetric Estimation of Ba.2<br>Fertilizer Analysis3) Water Analysi<br>4) Estimation of Vitamin C                                                                                                                                                                                     |
| Month: Fe    | bruary                   |       | Basic concepts in      | A) Basic concepts of industry                                                                                                                                                                                                                                                             |
| Teaching D   | ays                      | 14    | Industrial             | • Introduction                                                                                                                                                                                                                                                                            |
| Periods All  | C. 18 70.00.             | 4     | Chemistry              | Difference between classical                                                                                                                                                                                                                                                              |
| Periods Ava  | ailable                  |       |                        | chemistry and industrial chemistry                                                                                                                                                                                                                                                        |
| Teaching     | Practicals/<br>Tutorials | Tests | 3                      | <ul> <li>Raw material for the chemical industry</li> <li>Material safety data sheets</li> <li>Units that make up a chemical process</li> <li>Flow diagrams</li> <li>Material balances</li> <li>Material balances for multiple species</li> <li>Mass balance equation procedure</li> </ul> |
| 4            | 3                        | 1     | Organic Chemistry      | Preparation of p- nitroacetanilic     Preparation of phthalamide     Estimation of Ester                                                                                                                                                                                                  |

| Month: Ma    | arch                     |       |                        |                                                                         |
|--------------|--------------------------|-------|------------------------|-------------------------------------------------------------------------|
| Teaching D   | ays                      | 13    |                        |                                                                         |
| Periods Alle | otted                    |       |                        |                                                                         |
| Periods Ava  | ailable                  |       |                        |                                                                         |
| Teaching     | Practicals/<br>Tutorials | Tests |                        |                                                                         |
|              | 2                        |       | Inorganic<br>Chemistry | <ol> <li>Gravimetric Estimation of Fe</li> <li>Purity of FAS</li> </ol> |

Mondekov Sign of the Teacher

Sign of the Head

Sign of the Principal

TOAC CO-ORDINATOR

T.C. COLLEGE

Teachers Name: Mr.S.K. Patil

Subject : Chemistry

Class : B.Sc Part - II (Sem III)

Paper No: III & IV Paper Title: Physical Chemistry

**Industrial Chemistry** 

|                  |                          |       | Topic /Unit                     | Sub-units Planned                                                                                                                                                                                                        |
|------------------|--------------------------|-------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: Nove      | ember                    |       | Electtolytic Conductivity       | Conduction of                                                                                                                                                                                                            |
| Teaching Days    |                          | 15    |                                 | electricity, Types of                                                                                                                                                                                                    |
| Periods Allotted |                          | 6     |                                 | conductors, Variations of                                                                                                                                                                                                |
| Periods Avail    | able                     |       |                                 | conductivity, specific, Equiv                                                                                                                                                                                            |
| Teaching         | Practicals/<br>Tutorials | Tests |                                 | conductivity with dilution<br>for weak and strong<br>Electrolytes                                                                                                                                                        |
|                  | 2                        |       | Physical Chemistry              | Chemical kinetics I,II                                                                                                                                                                                                   |
| Month: Dece      | ember                    |       |                                 | Measurement                                                                                                                                                                                                              |
| Teaching Day     | ys                       | 25    | Electrolytic Conductivity       | conductance by Wheatstone                                                                                                                                                                                                |
| Periods Allot    |                          | 12    |                                 | Bridge.Kohlrauch law and                                                                                                                                                                                                 |
| Periods Avail    | lable                    |       |                                 | its applications.Conductometri                                                                                                                                                                                           |
| Teaching         | Practicals/<br>Tutorials | Tests |                                 | Migrations of ions Hittorf's Rule and Transference Number.Determination of transport number Numerical problems                                                                                                           |
|                  | 4                        | 1     | Physical Chemistry<br>Inorganic | Chemical Kinetics, III, IV<br>Preparation I, II                                                                                                                                                                          |
| Month: Jan       | uary                     |       |                                 | Introduction, Adsorption a surface phenomenon (mechanisim) Demonstration                                                                                                                                                 |
| Teaching Da      | iys                      | 17    | Surface Chemistry               |                                                                                                                                                                                                                          |
| Periods Allo     | tted                     | 16    |                                 |                                                                                                                                                                                                                          |
| Periods Ava      | ilable                   |       |                                 | Adsorption Characteristic                                                                                                                                                                                                |
| Teaching         | Practicals/<br>Tutorials | Tests |                                 | of adsorption , Factor affecting Adsorption. Type of Adsorption, Distinction between physical adsorption and chemical adsorption. Adsorption isotherm, Types of physical Adsorption isotherm. Application of adsorption. |
| 1                |                          |       | CONTRACT                        | Introduction, Third Ord                                                                                                                                                                                                  |

IQAC CO-ORDINATOR

Yashwantrao Chavan Mahavidyalaya
URUN-ISLAMPUR. (Dist. Sano Dist.

HEAD Chemistry

|               |                          |       | Chemical Kinetics   | Reactions.Theories of reaction Rate                                                                                                                                                                                                   |
|---------------|--------------------------|-------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               | 4                        | 1     | Inorganic Chemistry | 1)Gravimetric Estimation of<br>Ba.2)Fertilizer Analysis3)<br>Water Analysis 4)<br>Estimation of Vitamin C                                                                                                                             |
| Month: Feb    | ruary                    |       |                     | Size reduction- Principle                                                                                                                                                                                                             |
| Teaching Da   | ys                       | 14    | Unit Operations     | ,Jaw crusher,ball mill                                                                                                                                                                                                                |
| Periods Allot | tted                     | 14    |                     | Size enlargement-<br>Principle, pellet                                                                                                                                                                                                |
| Periods Avai  | ilable                   |       |                     | Principle, pellet mill,tumbling agglorerators                                                                                                                                                                                         |
| Teaching      | Practicals/<br>Tutorials | Tests |                     | Separation- Magnetic separation, Froth flotation, Distillation- Distillation of liquid mixtures, Types of distillation, Types of columns and packing, condensers, Vaccum distillation, Spinning-band distillation, steam distillation |
|               | 3                        | 1     |                     | 1) Preparation of p-<br>nitroacetanilide 2)<br>Preparation of<br>phthalamide 3)<br>Estimation of Ester                                                                                                                                |
| Month: Ma     | rch                      |       |                     |                                                                                                                                                                                                                                       |
| Teaching Da   | ays                      | 13    |                     |                                                                                                                                                                                                                                       |
| Periods Allo  | otted                    | 12    |                     |                                                                                                                                                                                                                                       |
| Periods Ava   | ilable                   |       |                     |                                                                                                                                                                                                                                       |
| Teaching      | Practicals/<br>Tutorials | Tests |                     |                                                                                                                                                                                                                                       |
|               | 2                        | 1     |                     | 1) Gravimetric Estimation of Fe 2) % purity of FAS                                                                                                                                                                                    |

Sign of the Head

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IQAC CO-ORDINATOR
Y. C. COLLEGE, ISLAMPUR

Service Co

Principal

#### YASHWANTRAO CHAVAN MAHAVIDYALAYA, ISLAMPUR ANNUAL TEACHING PLAN 2020-21

Name

: Ms. A. A. Patil

Subject : Physics

Class

: B.Sc. Part - I (Sem II)

Paper No: III

Paper Title

: Electricity and Magnetism - I

|                                    |                           |                    | Topic /Unit                                                        | Sub-units Planned                                                                                     |
|------------------------------------|---------------------------|--------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Month: April                       |                           | 1. Vector Analysis | Scalar and Vector                                                  |                                                                                                       |
| Teaching Days 17                   |                           | 17                 | LAB –B                                                             | product, gradient,                                                                                    |
| Periods Allo                       | tted                      | 12                 | LAD -D                                                             | divergence, Curl and their                                                                            |
| Periods Ava                        | ilable                    |                    | 1.Frequency of A. C.                                               | significance, Vector<br>Integration                                                                   |
| Teaching                           | Practical's/<br>Tutorials | Tests              | mains by sonometer                                                 | megration                                                                                             |
| 8                                  | 4                         |                    |                                                                    |                                                                                                       |
| Month: Mag                         | y                         | -                  | 1. Vector Analysis                                                 | Line, surface and volume                                                                              |
| Teaching Da                        | ıys                       | 25                 | 27 1 1                                                             | integrals of Vector fields,                                                                           |
| Periods Allo                       | tted                      | 11                 | 2.To study the a series LCR circuit and                            | Gauss-divergence                                                                                      |
| Periods Avai                       | ilable                    |                    | determine its (a)                                                  | Theorem and Stoke's theorem of vectors (statement only).                                              |
| Teaching                           | Practical's/<br>Tutorials | Tests              | Resonant Frequency, (b) Quality Factor.                            |                                                                                                       |
| 7                                  | 4                         |                    | ·                                                                  |                                                                                                       |
| Month: Jun                         | e                         | 71.77              | 2.Electrostatics  3.To study a parallel LCR circuit and            | Electrostatic Field,<br>electric flux, Gauss's<br>theorem of electrostatics,<br>Electric potential as |
| Teaching Da                        | ys                        | 26                 |                                                                    |                                                                                                       |
| Periods Allo                       | tted                      | 8                  |                                                                    |                                                                                                       |
| Periods Avai                       | lable                     |                    |                                                                    |                                                                                                       |
| Teaching Practical's/<br>Tutorials |                           | Tests              | determine its (a) Antiresonant frequency and (b) Quality factor Q. | line integral of electric field, potential due to a point charge,                                     |
| 4 .                                | 4                         |                    |                                                                    |                                                                                                       |
| Month: July                        |                           | 2.Electrostatics   | electric dipole, uniformly                                         |                                                                                                       |
| Teaching Da                        | ys                        | 26                 | 4.To use a multimeter for                                          | Charged spherical shell                                                                               |
| Periods Allot                      | ted                       | 12                 | measuring (a)                                                      | and solid sphere,                                                                                     |
| Periods Avai                       | lable                     |                    | Resistances, (b) AC and                                            | Calculation of electric                                                                               |

Principal

Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang

**IOAC CO-ORDINATOR** COLLEGE, ISLAMPUR

| Teaching | Practical's/<br>Tutorials | ng Practical's/ Tests DC | DC Voltages, (c) DC Current, and (d) checking electrical fuses. | field from potential. |
|----------|---------------------------|--------------------------|-----------------------------------------------------------------|-----------------------|
|          |                           |                          | 5. To verify the Thevenin theorem.                              |                       |
| 4        | 8                         |                          |                                                                 |                       |

Sign of the Teacher

Sign of the Head

Sign of the Principal

IQAC CO-ORDINATOR
Y. C. COLLEGE, ISLAMPUR

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Principal
Yashwantrao Chavan Mahavidyalaya
URUN-ISLAMPUR, (Dist. Sang

#### 2020-21

Teachers Name: Miss. Jadhav Megharani Chandrakant

Subject: Mathematics

Class

: B. Sc. Part II (Sem-III

| Paper No | :VI |  |
|----------|-----|--|
|----------|-----|--|

|                                  |                           |                                                     | Topic /Unit                                                                                  | Sub-units Planned                                                                                                                                                                   |
|----------------------------------|---------------------------|-----------------------------------------------------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: November Ceaching Days 17 |                           | Unit1: Matrices and<br>Relations<br>CCPM-II:- Eigen | <ul> <li>Revision on Matrices</li> <li>Hermitian and Skew<br/>Hermitian matrices.</li> </ul> |                                                                                                                                                                                     |
| Periods Allotte                  |                           |                                                     | Values & Eigen                                                                               | <ul> <li>Rank of a matrix, Row-</li> </ul>                                                                                                                                          |
| Periods Availa                   | ible                      |                                                     | Vectors                                                                                      | echelon form                                                                                                                                                                        |
| Teaching                         | Practicals<br>/ Tutorials | Tests                                               |                                                                                              | <ul> <li>System of equations</li> <li>Gaussian elimination and<br/>Gauss Jordon method</li> <li>Eigen values, Eigen vectorsof a<br/>matrix</li> </ul>                               |
| 12                               | 4                         |                                                     |                                                                                              |                                                                                                                                                                                     |
| Month: Dece                      | mber                      |                                                     | 1                                                                                            | <ul> <li>Cayley Hamilton theorem.</li> </ul>                                                                                                                                        |
| Teaching Day                     | s                         | 26                                                  | CCPM-II:- Cayley                                                                             | Relations:                                                                                                                                                                          |
| Periods Allott                   | ed                        | 20                                                  | Hamilton Theorem                                                                             | <ul> <li>equivalence relations and</li> </ul>                                                                                                                                       |
| Periods Avail                    | able                      |                                                     | CCPM-III:- Accessing                                                                         | Partial ordering relations.                                                                                                                                                         |
| Teaching                         | Practicals/<br>Tutorials  | Tests                                               | Elements of matrix                                                                           | <ul> <li>Digraphs of relations, matrix<br/>representation. Composition of<br/>relations. Transitive closure,<br/>Warshall's algorithm Equivalence<br/>classes, Partition</li> </ul> |
| 12                               | 8                         |                                                     |                                                                                              |                                                                                                                                                                                     |
| Month: January                   |                           | Unit2: Groups                                       | Definition of Binary                                                                         |                                                                                                                                                                                     |
| Teaching Days 24                 |                           | CCPM-II:- Examples on                               | Operations, examples. Groupsand its Properties.                                              |                                                                                                                                                                                     |
| Periods Allot                    |                           | 18                                                  | Group & order of anelement CCPM-III:- Sub- Matrix                                            | Quaternion group and Order of the                                                                                                                                                   |
| Periods Avail                    |                           |                                                     |                                                                                              | group                                                                                                                                                                               |
| Teaching                         | Practicals/<br>Tutorials  | Tests                                               |                                                                                              | Normalizer & Center of group G.                                                                                                                                                     |
| 10                               | 8                         |                                                     | 3                                                                                            |                                                                                                                                                                                     |
| Month: Febr                      | ruary                     |                                                     |                                                                                              | <ul> <li>Subgroups and theorems</li> </ul>                                                                                                                                          |
| Teaching Day                     | ys                        | 24                                                  | CCPM-II:- Cyclic sub-                                                                        | <ul><li>Theorms</li><li>Cyclic Groups Theorem</li></ul>                                                                                                                             |
| Periods Allot                    | ted                       | 14                                                  | group                                                                                        |                                                                                                                                                                                     |
| Periods Avai                     | lable                     |                                                     |                                                                                              | <ul> <li>Cosets and theorems on it</li> </ul>                                                                                                                                       |
| Teaching                         | Practicals/<br>Tutorials  | Tests                                               |                                                                                              | • Revision                                                                                                                                                                          |
| 10                               | 4                         |                                                     |                                                                                              |                                                                                                                                                                                     |
| 37 / 37                          |                           |                                                     |                                                                                              | - Cubaranna and theorems                                                                                                                                                            |
| Month: Man                       |                           | 25                                                  |                                                                                              | <ul> <li>Subgroups and theorems</li> <li>Theorms</li> </ul>                                                                                                                         |
| Teaching Da                      |                           |                                                     | CCPM-II:- Cyclic sub-                                                                        | - C. U. C The same                                                                                                                                                                  |
| Periods Allo                     | LV FESSI                  | 14                                                  | group (GE · d                                                                                | Cosets and theorems on it                                                                                                                                                           |
| Periods Avai                     | Practicals/<br>Tutorials  | Tests                                               | COLLA                                                                                        | Revision                                                                                                                                                                            |
|                                  | rutoriais                 | 1)                                                  |                                                                                              | 7016                                                                                                                                                                                |

Sign of the Head

Yashwain of the Principal Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sano

Sign of the Teacher IQAC CO-ORDINATOR

2020-21

Teachers Name: Mrs. Neha N. Sali

Subject

: Mathematics

Class

: B. Sc. Part II (Sem II)

· DSC-5C

Paper Title: Real Analysis-I

| aper No                                 | : DSC-5C                 |       | Topic /Unit                                     | Sub-units Planned                                 |
|-----------------------------------------|--------------------------|-------|-------------------------------------------------|---------------------------------------------------|
|                                         | Lives .                  |       | Unit1:Functions and                             | 1.1.Sets.                                         |
| Month: Novem                            | ber                      | 1.0   | Countable sets                                  | 1.2.Functions                                     |
| Teaching Days                           |                          | 17    | CCPM II- Range of                               |                                                   |
| Periods Allotted                        |                          | 13    | functions                                       |                                                   |
| Periods Available                       |                          |       |                                                 |                                                   |
| Teaching Practicals/<br>Tutorials       |                          | Tests |                                                 |                                                   |
| 5                                       | 5 4                      |       | *                                               |                                                   |
| Month: Decem                            | ber                      | -     | Unit1:Functions and                             | Mathematical Induction Countable Sets             |
| Teaching Days                           |                          | 26    | Countable sets CCPM II-                         | Countable Sets                                    |
| Periods Allotted                        | d                        | 18    | Mathematical                                    |                                                   |
| Periods Availab                         |                          |       | Induction                                       |                                                   |
| Teaching                                | Practicals/<br>Tutorials | Tests | CCPM II- Types of function                      |                                                   |
| 10                                      | 8                        |       |                                                 |                                                   |
| Month: January                          |                          |       | Unit1:Functions and                             |                                                   |
| Teaching Days                           | 1 20 5 M                 |       | Countable sets CCPM III- Introduction to SCILAB |                                                   |
| Periods Allotted                        |                          | 13    |                                                 |                                                   |
| Periods Availa                          |                          |       | CCPM III- Matrix in SCILAB                      | \$                                                |
| ANNUALS CHANGE OF THE CONTROL OF STREET |                          |       |                                                 |                                                   |
| Teaching                                | Practicals/<br>Tutorials | Tests |                                                 |                                                   |
| 9                                       | 4                        |       | 88                                              |                                                   |
| Month: Febru                            | iary                     |       | Unit2:The Real numbers                          | Algebraic and Order<br>Properties of real numbers |
| Teaching Days                           | S                        | 24    | CCPM III- Creating Polynomials in SCILAB        | Inequalities Absolute Value and                   |
| Periods Allotte                         | ed                       | 14    | 1 oryholinais in section                        | neighbourhood                                     |
| Periods Availa                          | ible                     |       |                                                 |                                                   |
| Teaching                                | Practicals/<br>Tutorials | Tests |                                                 |                                                   |
| . 10                                    | 4                        |       |                                                 |                                                   |
| Month: Marc                             | ch                       |       | Unit2: The Real numbers                         | Completeness property of real numbers             |
| Teaching Day                            | s                        | 24    | CCPM III- Plotting graph in SCILAB              | Intervals                                         |
| Periods Allott                          |                          | 14    | BCILAG                                          | CENTRODOM SARDOMINAX                              |
| Periods Avail                           |                          |       |                                                 |                                                   |
| Teaching                                | Practicals/<br>Tutorials | Tests |                                                 |                                                   |
| 10                                      | 4                        | -     |                                                 |                                                   |

IQAC CO-ORDINA Y. C. COLLEGE, ISLANDO

Sign of the Head

Principal

Yashwantrao Chavan Mahavidyalaya

URUN-ISLAMPUR. (Dist. Sang Sign of the Princip

Sign of the Teacher

Teachers Name: Miss. A.P .Dhotre

Subject : physics

Class: B.Sc Part - II (Sem III)

Paper No: V

Paper Title:

THERMAL PHYSICS AND STATISTICAL MECHANICS - I

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                           |                       | Topic /Unit                                    | Sub-units Planned                                                                                                              |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|--|
| Month: Nov                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ember                                     |                       | Unit II:                                       | Thermodynamic system, thermodynamic variables,                                                                                 |  |
| Teaching Day                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ys                                        | 17                    | Laws of Thermodynamics                         |                                                                                                                                |  |
| Periods Allotted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                           | 7                     |                                                | equation of state,                                                                                                             |  |
| Periods Avai                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | lable                                     |                       | 1.To investigate the motion of                 |                                                                                                                                |  |
| Teaching Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                           | Tests                 | coupled oscillators                            |                                                                                                                                |  |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4                                         |                       |                                                |                                                                                                                                |  |
| Month: Dec                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ember                                     |                       | Laws of Thermodynamic                          | thermodynamic                                                                                                                  |  |
| Teaching Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | VS                                        | 26                    |                                                | equilibrium, Zeroth Law of                                                                                                     |  |
| Periods Allo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                           | 9                     | 2.To determine coefficient                     | thermodynamics, Internal                                                                                                       |  |
| Periods Avai                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | MARAGON I                                 |                       | of viscosity of water by                       | energy, First law of                                                                                                           |  |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Practicals/<br>Tutorials                  | Tests                 | capillary flow method<br>(Poiseuille's method) | thermodynamics,                                                                                                                |  |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4                                         |                       |                                                |                                                                                                                                |  |
| Month: January                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                           | Laws of Thermodynamic | conversion of heat into                        |                                                                                                                                |  |
| A second |                                           | 24                    | 3.To determine viscosity of                    | work, specific heats Cp&<br>Cv, Applications of First                                                                          |  |
| Periods Allotted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                           | 9                     |                                                |                                                                                                                                |  |
| Periods Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                           | liquid by Searle's    | Law (Isothermal                                |                                                                                                                                |  |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Practicals/<br>Tutorials                  | Tests                 | viscometer.                                    | process, Adiabatic process<br>Isochoric, Isobaric), relatio<br>between CP & Cv,                                                |  |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4                                         |                       |                                                |                                                                                                                                |  |
| Month: Feb                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                           |                       | Laws of Thermodynamic                          | work done during isothermal and adiabatic                                                                                      |  |
| Teaching Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                           | 24                    | 4. To determine velocity of                    |                                                                                                                                |  |
| Periods Allo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | The Course Jane                           |                       | sound in air by resonating                     | processes, reversible &                                                                                                        |  |
| Periods Ava                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2550000                                   | 10                    | bottle.                                        | irreversible processes,                                                                                                        |  |
| Teaching Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                           | Tests                 |                                                | Second law of<br>thermodynamics, Carnot's<br>ideal heat engine, Carnot's<br>cycle (Working, efficiency)<br>Carnot's<br>theorem |  |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4                                         |                       |                                                |                                                                                                                                |  |
| Month: Ma                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | rch                                       | 1                     | Laws of Thermodynamic                          | Entropy (concept &                                                                                                             |  |
| Teaching Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ays                                       | 26                    |                                                | significance), Entropy                                                                                                         |  |
| Periods Allo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                           | 7                     |                                                | changes in reversible &                                                                                                        |  |
| Periods Ava                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | X-10-10-10-10-10-10-10-10-10-10-10-10-10- |                       |                                                | irreversible                                                                                                                   |  |

| Teaching | Practicals/<br>Tutorials | Tests | 5. To determine frequency of a crystal oscillator. | Processes, Third law of<br>thermodynamics,<br>Unattainability of absolute<br>zero. |
|----------|--------------------------|-------|----------------------------------------------------|------------------------------------------------------------------------------------|
| 3        | 4                        |       |                                                    |                                                                                    |

Ahohe
Sign of the Teacher

Sign of the Head

Sign of the Principal

IQAC CO-ORDINATOR Y. C. COLLEGE, ISLAMPUR SEAL STAND

Principal
Yashwantrao Chavan Mahavidyalaya
URUN-ISLAMPUR, (Dist. Sang.)

### YASHWANTRAO CHAVAN COLLEGE, ISLAMPUR ANNUAL TEACHING PLAN 2020-21

Teachers Name: Miss. N.S. Atugade

Subject :physics

Class: B.Sc Part - II (SemIII)

Paper No:V

Paper Title: THERMAL PHYSICS AND STATISTICAL MECHANICS - I

|                          |                                                                                                                                                                                                                                                                                                                                                                                  | Topic /Unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Sub-units Planned                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| ember                    |                                                                                                                                                                                                                                                                                                                                                                                  | Unit I-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| ys                       | 17                                                                                                                                                                                                                                                                                                                                                                               | Kinetic theory of gases                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Introduction, Mean free path and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| ted                      | 8                                                                                                                                                                                                                                                                                                                                                                                | and Thermometry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | molecular diameter, correction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Periods Available        |                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | applied by claussius and Maxwell's.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Practicals/<br>Tutorials | Tests                                                                                                                                                                                                                                                                                                                                                                            | 1.Thermocouple I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ividawen 5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4                        |                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| ember                    | -                                                                                                                                                                                                                                                                                                                                                                                | Kinetic theory of gases                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Maxwell's law of distribution,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| ys                       | 26                                                                                                                                                                                                                                                                                                                                                                               | and Thermoy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Experimental varification,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| ted                      | 9                                                                                                                                                                                                                                                                                                                                                                                | 22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Transport phenomenon,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| lable                    |                                                                                                                                                                                                                                                                                                                                                                                  | 2.Thermocouple II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Transport of Momentum,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Practicals/<br>Tutorials | Tests                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 4                        |                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Month: January           |                                                                                                                                                                                                                                                                                                                                                                                  | Kinetic theory of gases and Thermometry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Transport of Gas, Transport of Mass, law of equipartition of energy, Application, Principle of The Transport of Transport of Gas, Transpor |
| Teaching Days 24         |                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Periods Allotted 9       |                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| lable                    | 1                                                                                                                                                                                                                                                                                                                                                                                | 3.Stefens constant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Thermometry, Temperatur scale.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Practicals/<br>Tutorials | Tests                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | scare.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 4                        |                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| ruary                    |                                                                                                                                                                                                                                                                                                                                                                                  | Kinetic theory of gases and Thermometry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Platinum resistance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| ys                       | 24                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Thermometer, mercury thermometer, Thermocouple                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| tted                     | 9                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| ilable                   | 1                                                                                                                                                                                                                                                                                                                                                                                | The state of the s | Thermistor as thermometer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Practicals/<br>Tutorials | Tests                                                                                                                                                                                                                                                                                                                                                                            | disc method.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 4                        |                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| rch                      |                                                                                                                                                                                                                                                                                                                                                                                  | Viscosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Rate of flow of liquid in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| iys                      | 26                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | capillary tube, Poiseulls formula                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Periods Allotted 9       |                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Poiseulls experiment, variation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| ilable                   | -                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | of viscosity of liquid with<br>temperatures lubricant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Practicals/<br>Tutorials | Tests                                                                                                                                                                                                                                                                                                                                                                            | 5.Thermal conductivity of copper by Searles apparatus.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 4                        |                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                          | ruary ys ted lable  Practicals/ Tutorials  4 ember ys ted lable  Practicals/ Tutorials  4 ruary ys tted lable  Practicals/ Tutorials  4 ruh ys tted lable  Practicals/ Tutorials  4 ruh ys tted lable  Practicals/ Tutorials  4 ruh ys | ruary ys 24 ted 9 lable  Practicals/ Tutorials  4 Tests  4 Practicals/ Tutorials  4 Tests  4 Practicals/ Tutorials  4 Tests  4 Practicals/ Tutorials  4 Tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ruary ys 24 ted 9 lable  Practicals/ Tutorials  Practicals/ Tests  Practical |

Sign of the Teacher

Sign of the Head

Sign of the Principal

Principal

Yashwantrao Chavan Mahavidyalave URUN-ISLAMPUR, (Dist. Sang

IQAC CO-ORDINATOR
Y. C. COLLEGE, ISLAMPUR

Teachers Name: Miss. S.D.Kulkarni

Subject : Chemistry

Class: B.Sc Part - II (Sem - III)

Paper No: VI

Paper Title :Industrial chemistry

|               |                          |                    | Topic /Unit                | Sub-units Planned                                                                                                                                                                                                                                         |
|---------------|--------------------------|--------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: Nove   | ember                    | Marian 17 and 2017 | Unit III.                  | Introduction of corrosion,                                                                                                                                                                                                                                |
| Teaching Days |                          | 17                 | Corrosion & Electroplating | Electrochemical theory of                                                                                                                                                                                                                                 |
| Periods Allot | ted                      | 4                  |                            | corrosion, Factors affecting                                                                                                                                                                                                                              |
| Periods Avail | lable                    |                    |                            | on corrosion -i. Position of metals in the                                                                                                                                                                                                                |
| Teaching      | Practicals/<br>Tutorials | Tests              |                            | electrochemical series on<br>the basis of standard<br>reduction potential ii. Purity<br>of metal                                                                                                                                                          |
| 4             | -                        |                    |                            |                                                                                                                                                                                                                                                           |
| Month: Deco   | ember                    | Tr.                | Unit III.                  | iii.Effect of moisture iv.                                                                                                                                                                                                                                |
| Teaching Day  | ys                       | 26                 | Corrosion & Electroplating | Effect of oxygen                                                                                                                                                                                                                                          |
| Periods Allot | ted                      | 5                  |                            | (differential aeration                                                                                                                                                                                                                                    |
| Periods Avai  | lable                    |                    |                            | principle) v. Hydroger overvoltage, Methods of protections of metal from corrosion Electroplating: Electrolysis Faraday's laws, Cathod current Efficiency, Basic principle of electroplating, Cleaning of articles, Electroplating of chromium, Anodizing |
| Teaching      | Practicals/<br>Tutorials | Tests              |                            |                                                                                                                                                                                                                                                           |
| 5             | -                        |                    |                            |                                                                                                                                                                                                                                                           |
| Month: Jan    |                          | Law                | Unit IV                    | Manufacturing of Pulp                                                                                                                                                                                                                                     |
| Teaching Da   | • 11/                    | 24                 | Paper Industry             | Types of pulp-Sulphate and                                                                                                                                                                                                                                |
| Periods Allo  |                          | 5                  |                            | soda ,Manufacturing o<br>paper, calendaring<br>,ecological                                                                                                                                                                                                |
| Periods Avai  | ilable                   |                    | _                          |                                                                                                                                                                                                                                                           |
| Teaching      | Practicals/<br>Tutorials | Tests              |                            | problems of Indian Papel industry,                                                                                                                                                                                                                        |
| 5             | -                        |                    |                            |                                                                                                                                                                                                                                                           |
| Month: Feb    | ruary                    |                    | Paper Industry             | Features of good pape                                                                                                                                                                                                                                     |
| Teaching Da   | ıys                      | 24                 |                            | industry                                                                                                                                                                                                                                                  |
| Periods Allo  | tted                     | 5                  |                            |                                                                                                                                                                                                                                                           |
| Periods Ava   | ilable                   |                    | 500 7070707                | Introduction, Soaps - Ray                                                                                                                                                                                                                                 |
| Teaching      | Practicals/              | Tests              | UnitV                      | materials, Types of soaps                                                                                                                                                                                                                                 |

|              | Tutorials                |       | Soaps and Detergents | Cleansing action of soap                                                                  |
|--------------|--------------------------|-------|----------------------|-------------------------------------------------------------------------------------------|
| 5            | =                        |       |                      |                                                                                           |
| Month: March |                          |       | UnitV                | Manufacture of soap -                                                                     |
| Teaching Da  | Teaching Days            |       | Soaps and Detergents | Boiled or Hot Process,<br>Detergents - Raw Materials,                                     |
| Periods Allo | Periods Allotted         |       |                      |                                                                                           |
| Periods Ava  | ilable                   |       |                      | Types of Detergents Anionic, cationic and                                                 |
| Teaching     | Practicals/<br>Tutorials | Tests |                      | amphoteric, Preparation of Teepol and Deriphat, Comparisons between soaps and detergents. |
| 3            | -                        |       |                      |                                                                                           |

Sign of the Teacher

Sign of the Head

Sign of the Principal

IQAC CO-ORDINATOR

SEAL OF SEAL OF

Principal

Yashwantrao Chaven Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang

# YASHWANTRAO CHAVAN COLLEGE, ISLAMPUR **ANNUAL TEACHING PLAN**

2020-21

Subject : Chemistry

Paper No: V

Class

: B.Sc Part - II (Sem - III)

Paper Title : Physical Chemistry

|                     |                          |                  | Topic /Unit          | Sub-units Planned                             |
|---------------------|--------------------------|------------------|----------------------|-----------------------------------------------|
| Month: November     |                          |                  |                      |                                               |
| Teaching Day        | ys                       |                  |                      |                                               |
| Periods Allot       | ted                      |                  |                      |                                               |
| Periods Avai        | lable                    | 20.7.17.20.00.00 |                      |                                               |
| Teaching            | Practicals/<br>Tutorials | Tests            |                      |                                               |
| Month: Dec          | ember                    |                  |                      | Types of radiations,                          |
| Teaching Days       |                          | 6                | 4. Nuclear Chemistry | Properties of alpha, beta, gamma radiations,  |
| Periods Allotted    |                          | 5                |                      |                                               |
| Periods Avai        | lable                    |                  |                      |                                               |
| Teaching            | Practicals/<br>Tutorials | Tests            |                      |                                               |
| Month: Jan          | uary                     | 1                |                      |                                               |
| Teaching Da         | ys                       | 5                | 4. Nuclear Chemistry | Geiger Muller method<br>Scintillation counter |
| Periods Allo        | tted                     | 4                |                      |                                               |
| Periods Available   |                          | 7                | method, Geiger-Nutta |                                               |
| Teaching Practicals | Practicals/<br>Tutorials | Tests            |                      | relation                                      |
|                     |                          | 1                |                      |                                               |

Sign of the Teacher

Sign of the Head

Sign of the Principal

**IQAC CO-ORDINATOR** Y. C. COLLEGE, ISLAMPUR

Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang

Teachers Name : Jagatap Nilesh Ramesh

Subject : Computer Science

Paper No: DSC-11C

Class : B. Sc. Part II (Sem - III)

Paper Title: PHP and MvSOL

|                                    |                          |       | Topic /Unit                                                                                  | Sub-units Planned                                                                                                      |
|------------------------------------|--------------------------|-------|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Month: Dec                         |                          |       | Unit – 1: - Introduction to                                                                  | • Introduction,                                                                                                        |
| Teaching Da                        | •                        | 26    | PHP Scripting                                                                                | Evaluation, Features, PH                                                                                               |
| Periods Allotted                   |                          | 4     |                                                                                              | Script(PHP tags php</td                                                                                                |
| Periods Avai                       | lable                    |       |                                                                                              | ?>, SGML-style                                                                                                         |
| Teaching Practicals/<br>Tutorials  |                          | Tests |                                                                                              | tags ? ,ASP style <% %>,  HTML Script Tag  Variables: Scope Functions Constant: define() Operators Precedence Strings: |
| 3                                  | 1                        |       |                                                                                              |                                                                                                                        |
| Month: Jan                         |                          | 25    |                                                                                              | <ul> <li>Decision Making</li> </ul>                                                                                    |
|                                    | Teaching Days            |       | _                                                                                            | Statements:  • Iterative Statements:                                                                                   |
| Periods Allotted                   |                          | 4     |                                                                                              |                                                                                                                        |
| Periods Avai                       | lable                    |       |                                                                                              | <ul><li>continue statement</li><li>Exit statements:</li></ul>                                                          |
| Teaching                           | Practicals/<br>Tutorials | Tests |                                                                                              | <ul><li>User Defined Functions:</li><li>variables, Dynamic<br/>Function call</li></ul>                                 |
| 2                                  | 2                        |       |                                                                                              | Arrays:                                                                                                                |
| Month: Febr                        | ruary                    |       | Unit – II: HTML, HTML                                                                        | ■ Introduction: UTMI                                                                                                   |
| Teaching Day                       |                          | 22    | forms and MySql                                                                              | <ul> <li>Introduction: HTML,<br/>necessary tags to design</li> </ul>                                                   |
| Periods Allot                      |                          | 6     | connectivity                                                                                 | form layout.                                                                                                           |
| Periods Avail                      | lable                    |       |                                                                                              | <ul> <li>Forms: HTML forms,</li> </ul>                                                                                 |
| Teaching                           | Practicals/<br>Tutorials | Tests |                                                                                              | action and get & post<br>methods. PHP super<br>global variables<br>(\$_PHP_SELF,<br>• \$_GET, \$_POST,                 |
| 4                                  | 2                        |       |                                                                                              |                                                                                                                        |
| Month: Mar                         | A11510                   |       |                                                                                              | (MySql Database(Old or                                                                                                 |
| Teaching Day                       |                          | 26    |                                                                                              | Improved):                                                                                                             |
| Periods Allotted Periods Available |                          | 5     |                                                                                              | • cursor                                                                                                               |
|                                    |                          |       | (NO.)                                                                                        | Zation                                                                                                                 |
| Teaching 7                         | Practicals/              | Tests | State of C                                                                                   | Principal                                                                                                              |
| reaching                           | Tutorials                |       | \( \( \text{\text{\$\infty}} \) \( \( \text{\text{\$\infty}} \) \( \text{\text{\$\infty}} \) | Principal Principal                                                                                                    |

Name

: Ms. A. A. Patil

Subject : Physics

Ċlass

: B.Sc. Part - II (Sem III)

Paper No: VI

Paper Title : Waves and Optics -I

| ember<br>ys<br>tted              |                                              | Unit I:                                      | T                                                                                                                                                                                                                         |
|----------------------------------|----------------------------------------------|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| lable                            | 4                                            | 1. Superposition of Harmonic Oscillations    | Linearity and superposition principle, Superposition of two collinear harmonic oscillations for oscillations having equal                                                                                                 |
| Practical's/<br>Tutorials        | Tests                                        | •                                            | frequencies (Analytical and<br>geometrical methods) and<br>oscillations having differen<br>frequencies (Beats),                                                                                                           |
|                                  |                                              |                                              |                                                                                                                                                                                                                           |
| Month: December Teaching Days 26 |                                              | 1. Superposition of Harmonic Oscillations    | Superposition of two<br>perpendicular<br>harmonic oscillations- for<br>oscillations having equal                                                                                                                          |
| Periods Allotted                 |                                              |                                              |                                                                                                                                                                                                                           |
| able                             |                                              |                                              | frequencies (Graphical and                                                                                                                                                                                                |
|                                  |                                              | Ultrasonic waves                             | analytical<br>methods) and oscillations<br>having different frequencies<br>(Lissajous figures), Uses of<br>Lissajous<br>figures.,                                                                                         |
| Practical's/<br>Tutorials        | Tests                                        |                                              | Waves Motion: Transverse waves on a string, travelling and standing waves on a string, Normal modes of a string, Group velocity and Phase velocity, Plane waves, Spherical waves. Ultrasonic waves: Piezoelectric effect, |
|                                  |                                              | (XC)                                         | 7210                                                                                                                                                                                                                      |
| t                                | rutorials  mber  /s  ted  able  Practical's/ | Tutorials  Tests  Tests  Tests  Tests  Tests | Tutorials  Tests  Tutorials  Tests  1. Superposition of Harmonic Oscillations  able  2. Waves Motion and Ultrasonic waves  Practical's/  Tests                                                                            |

**Principal** 

Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang

| Month: Jai         | nuary                     |       | 2. Waves Motion and                     | Production of ultrasonic                                                                                                                                        |
|--------------------|---------------------------|-------|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Teaching Days      |                           | 24    | Ultrasonic waves                        | waves by Piezo-electric                                                                                                                                         |
| Periods Allotted 7 |                           | 7     |                                         | generator, Detection of                                                                                                                                         |
| Periods Ava        | Periods Available         |       |                                         | ultrasonic waves, Properties ultrasonic waves,                                                                                                                  |
|                    | 8                         |       | 3. Coupled Oscillations                 | Applications of ultrasonic waves.                                                                                                                               |
| Teaching           | Practical's/<br>Tutorials | Tests |                                         | Frequencies of coupled oscillatory systems, normal modes and normal coordinates, energy of coupled oscillations, energy transfer in coupled oscillatory system. |
| 7                  |                           |       |                                         | sammery bystem.                                                                                                                                                 |
| Month: Feb         | ruary                     |       | Unit II                                 | Sound: Transducers and                                                                                                                                          |
| Teaching Da        | ıys                       | 24    | 1. Sound and Acoustics of               | their characteristics,                                                                                                                                          |
| Periods Allotted   |                           | 4     | buildings:                              | Pressure microphone,<br>Moving coil                                                                                                                             |
| Periods Ava        | ilable                    |       | * · · · · · · · · · · · · · · · · · · · | loudspeaker, Intensity and                                                                                                                                      |
| Teaching           | Practical's/<br>Tutorials | Tests |                                         | loudness of sound, Decibels, Intensity levels, musical notes, musical scale.                                                                                    |
| 4                  |                           |       |                                         |                                                                                                                                                                 |
| Month: Mai         | rch                       |       | 1. Sound and Acoustics of               | Entropy (concept &                                                                                                                                              |
| Teaching Da        | ys                        | 26    | buildings                               | significance), Entropy                                                                                                                                          |
| Periods Allo       | tted                      | 3     |                                         | changes in reversible &                                                                                                                                         |
| Periods Avai       | lable                     |       | -                                       | irreversible                                                                                                                                                    |
| Teaching           | Practical's/<br>Tutorials | Tests |                                         | Acoustics of buildings: Reverberation and time of reverberation, Absorption coefficient, Sabine's formula for measurement of reverberation time,                |
| 3                  |                           |       |                                         | Acoustic aspects of halls and Auditoria.                                                                                                                        |
| <i>-</i>           |                           |       |                                         |                                                                                                                                                                 |

Sign of the Teacher

Sign of the Head

Sign of the Principal

**Principal** 

Yashwantrao Chavan Mahavidyalava URUN-ISLAMPUR, (Dist. Sang.

10AC CO-ORDINATOR
Y.C. COLLEGE, ISLAMPUR

### YASHWANTRAO CHAVAN COLLEGE, ISLAMPUR ANNUAL TEACHING PLAN 2020-21

Subject: Chemistry

Class: B.Sc. Part - II (Sem -IV)

Paper No:

Paper Title: Practicals

|             |                          |       | Topic/Unit          | Sub-units Planned                                                                                                                      |
|-------------|--------------------------|-------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Month: Ap   | ril                      |       |                     |                                                                                                                                        |
| Teaching D  | ays                      | 15    |                     |                                                                                                                                        |
| Periods All | otted                    |       |                     |                                                                                                                                        |
| Periods Av  | ailable                  |       |                     |                                                                                                                                        |
| Teaching    | Practicals/<br>Tutorials | Tests |                     |                                                                                                                                        |
|             | 6                        |       | Physical Chemistry  | Viscosity, refractometry, polarimetry, conductometry-II                                                                                |
| Month: M    | ay                       |       |                     |                                                                                                                                        |
| Teaching D  | ays                      | 16    |                     |                                                                                                                                        |
| Periods All | otted                    |       |                     |                                                                                                                                        |
| Periods Av  | ailable                  |       |                     |                                                                                                                                        |
| Teaching    | Practicals/<br>Tutorials | Tests |                     |                                                                                                                                        |
|             | 6                        |       | Inorganic Chemistry | <ul> <li>Preparation of Sodium cuprous thiosulphate</li> <li>Preparation of tris (ethylenediamine) nickel (II) thiosulphate</li> </ul> |
| Month: Ju   | ine                      |       |                     |                                                                                                                                        |
| Teaching [  | Days                     | 15    |                     |                                                                                                                                        |
| Periods All |                          | 13    |                     |                                                                                                                                        |
| Periods Av  | ailable                  |       |                     |                                                                                                                                        |
| Teaching    | Practicals/<br>Tutorials | Tests |                     |                                                                                                                                        |
|             | 3                        |       | Organic Chemistry   | Organic qualitative analysis of three compounds                                                                                        |
| Month: Ju   | ıly                      |       |                     |                                                                                                                                        |
| Teaching I  | Days                     | 16    |                     |                                                                                                                                        |
| Periods Al  |                          |       |                     |                                                                                                                                        |
| Periods Av  | ailable                  | 1     |                     |                                                                                                                                        |
| Teaching    | Practicals/<br>Tutorials | Tests |                     |                                                                                                                                        |
|             | 3                        |       | Organic Chemistry   | Organic qualitative analysis of three compounds                                                                                        |
| Month: A    | ugust                    |       |                     |                                                                                                                                        |
| Teaching I  |                          | 14    | 1                   | 2                                                                                                                                      |
| Periods Al  |                          |       |                     |                                                                                                                                        |
| Periods Av  | ailable                  |       |                     |                                                                                                                                        |
| Teaching    | Practicals/<br>Tutorials | Tests |                     |                                                                                                                                        |

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IQAC CO-ORDINATOR

ST. AMPUR

Principal

Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sano

#### 2020-21

Teachers Name: Jadhav Megharani Chandrakant

Subject : Mathematics

Class : B Part I (Sem-II)

Paper Title : Algebra-II

| /III                           |                                                                                                                                                        | Paper Title : Algebra-II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                            |  |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                                |                                                                                                                                                        | Topic /Unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                            |  |
| ril                            |                                                                                                                                                        | Unit - 1 Groups                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Lagrange's theorem and                                                                                                                                     |  |
| Teaching Days Periods Allotted |                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | its Consequences  1. Euler's theorem                                                                                                                       |  |
|                                |                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2. Fermat's theorem.                                                                                                                                       |  |
| ailable                        | <b>.</b>                                                                                                                                               | September 1 and 1  | Normal subgroups and                                                                                                                                       |  |
| Practicals/<br>Tutorials       | Tests                                                                                                                                                  | using Function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | its Properties                                                                                                                                             |  |
| 8                              |                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                            |  |
| ay                             |                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Factor Group                                                                                                                                               |  |
| ays                            | 25                                                                                                                                                     | CCPM-III:- Inter-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | (Quotient Group)                                                                                                                                           |  |
| otted                          | 18                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <ul> <li>Homomorphism of<br/>Groups Isomorphism,</li> </ul>                                                                                                |  |
| ailable                        |                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Automorphism and Endomorphism of Groups and examples.                                                                                                      |  |
| Practicals/<br>Tutorials       | Tests                                                                                                                                                  | Integration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                            |  |
| 8                              |                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                            |  |
| ne                             |                                                                                                                                                        | Unit – 2 Normal subgroups CCPM-II:-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Kernel of a Homomorphism  1. Results related to Isomorphism.                                                                                               |  |
| Days                           | 26                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                            |  |
| otted                          | 18                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                            |  |
| ailable                        |                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                            |  |
| Practicals/<br>Tutorials       | Tests                                                                                                                                                  | CCPM-III:- Numerical methods for solution ODE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                            |  |
| 8                              |                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | =                                                                                                                                                          |  |
| ıly                            |                                                                                                                                                        | CCPM-II:- Permutaion                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                            |  |
| Days                           | 26                                                                                                                                                     | Group                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1. Definition, Examples.                                                                                                                                   |  |
| Periods Allotted 18            |                                                                                                                                                        | CCPM-III:-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2. Theorems.                                                                                                                                               |  |
| lotted                         | 18                                                                                                                                                     | Numerical methods for                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3 Rings Subrings                                                                                                                                           |  |
| lotted<br>vailable             | 18                                                                                                                                                     | Numerical methods for solution of a system of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | THE PERSON OF THE COLUMN TWO                                                                                                                               |  |
| Mentero (1923 N                | Tests                                                                                                                                                  | Numerical methods for solution of a system of linear equations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                            |  |
|                                | otted ailable Practicals/ Tutorials 8 ay Days otted ailable Practicals/ Tutorials 8 Ine Days lotted railable Practicals/ Tutorials Tutorials Tutorials | oril Pays 17 otted 20 ailable  Practicals/ Tutorials 8  ay Days 25 otted 18 ailable  Practicals/ Tutorials 8  Ine Days 26 lotted 18 railable  Practicals/ Tutorials 7 Tests Tutorials 7 Tests Tutorials 8  Ine Days 26 lotted 18 railable  Practicals/ Tutorials 7 Tests Tutorials 7 Tests Tutorials 8  Ine Days 26 Ine Days 36 Ine Days 37 Ine Days 38 Ine Days 48 Ine Days 4 | Topic /Unit  Unit - 1 Groups CCPM-III:- Advanced matrix operation CCPM-III:- Advanced SCILAB programming using Function  Practicals/ Tutorials  8  ay Days |  |





**Principal** 

Yashwantrao Chavan Mahavidyalava URUN-ISLAMPUR (Diet Sans

2020-21

Teachers Name: Mrs. Neha N. Sali

Subject

: Mathematics

Class

: B. Sc. Part II (Sem II)

Paper No

: DSC-5D

Paper Title : Real Analysis-II

|              |                          |       | Topic /Unit                                               | Sub-units Planned          |
|--------------|--------------------------|-------|-----------------------------------------------------------|----------------------------|
| Month: Apr   | il                       |       | UNIT 1: Sequence of                                       | Sequence and               |
| Teaching Da  | Teaching Days 17         |       | real numbers                                              | subsequence                |
| Periods Allo | tted                     |       |                                                           | Monotone                   |
| Periods Avai | lable                    |       | SCILAB Programming                                        | Sequences                  |
| Teaching     | Practicals/<br>Tutorials | Tests | methods to find roots of function                         |                            |
|              | 8                        |       |                                                           |                            |
| Month: May   | y                        | W     | UNIT 1: Sequence of                                       | Operations on convergent   |
| Teaching Da  | ys                       | 25    | real numbers                                              | sequences Limit Superior   |
| Periods Allo | tted                     | 20    | CCPM II- Limit of a                                       | and Limit Inferior of      |
| Periods Avai | lable                    |       | sequence                                                  | Sequences                  |
| Teaching     | Practicals/<br>Tutorials | Tests | CCPM III- Graph theory in SCILAB                          |                            |
| 12           | 8                        |       |                                                           |                            |
| Month: Jun   | Month: June              |       | UNIT 2: Infinite Series                                   | Convergent and             |
| Teaching Da  | ys                       | 26    | CCPM II- Convergence of sequence CCPM III- Characteristic | Series                     |
| Periods Allo | tted                     | 18    |                                                           |                            |
| Periods Avai | lable                    |       |                                                           |                            |
| Teaching     | Practicals/<br>Tutorials | Tests | Polynomial                                                |                            |
| 10           | 8                        |       | •                                                         |                            |
| Month: July  | 7                        |       | UNIT 2: Infinite Series                                   | Comparison Tests For       |
| Teaching Da  | ys                       | 26    | CCPM II- Comparison test                                  | Positive Term Series       |
| Periods Allo | tted                     | 20    | & Cauchy's root test                                      | Alternating Series         |
| Periods Avai | lable                    |       | CCPM II- D'Alembert's                                     | Absolute and               |
| Teaching     | Practicals/<br>Tutorials | Tests | ratio test & Rabbi's test.                                | Conditional<br>Convergence |
| 12           | 8                        |       |                                                           |                            |

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Sign of the Principal

Principal

Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang

**IQAC CO-ORDINATOR** Y. C. COLLEGE, ISLAMPUR

### YASHWANTRAO CHAVAN COLLEGE, ISLAMPUR ANNUAL TEACHING PLAN 2020-21

Subject : Chemistry

Class

: B.Sc Part - II (Sem -IV)

Paper No: VII & VIII

Paper Title: Practicals

|                |                          |       | Topic /Unit         | Sub-units Planned                                                                                           |
|----------------|--------------------------|-------|---------------------|-------------------------------------------------------------------------------------------------------------|
| Month: April   |                          | 4).   |                     |                                                                                                             |
| Teaching Day   | s                        | 15    |                     |                                                                                                             |
| Periods Allott | ed                       |       |                     |                                                                                                             |
| Periods Availa | able                     |       |                     |                                                                                                             |
| Teaching       | Practicals/<br>Tutorials | Tests |                     |                                                                                                             |
|                | 1                        |       | Physical Chemistry  | Refractometry                                                                                               |
| Month: May     |                          |       |                     |                                                                                                             |
| Teaching Day   | S                        | 16    |                     |                                                                                                             |
| Periods Allott | ed                       |       |                     |                                                                                                             |
| Periods Avail  | able                     |       |                     |                                                                                                             |
| Teaching       | Practicals/<br>Tutorials | Tests |                     |                                                                                                             |
|                | 2                        | ı     | Physical Chemistry  | Codductometry I<br>Codductometry II                                                                         |
| Month: June    | 3                        |       |                     |                                                                                                             |
| Teaching Day   | /S                       | 15    |                     |                                                                                                             |
| Periods Allot  |                          |       |                     |                                                                                                             |
| Periods Avail  | able                     |       |                     |                                                                                                             |
| Teaching       | Practicals/<br>Tutorials | Tests |                     |                                                                                                             |
|                | 2                        | 2     | Physical Chemistry  | Viscometer     Polarimeter                                                                                  |
| Month: Jully   | /                        |       |                     |                                                                                                             |
| Teaching Day   | ys                       | 16    | 4                   |                                                                                                             |
| Periods Allot  | ted                      |       |                     |                                                                                                             |
| Periods Avail  | lable                    |       |                     |                                                                                                             |
| Teaching       | Practicals/<br>Tutorials | Tests |                     |                                                                                                             |
|                | 4                        |       |                     |                                                                                                             |
| Month: Aug     | ist                      |       | Organic Chemistry   |                                                                                                             |
| Teaching Day   |                          | 14    | Inorganic Chemistry |                                                                                                             |
| Periods Allot  | - III - I                |       |                     |                                                                                                             |
| Periods Avai   | lable                    |       |                     |                                                                                                             |
| Teaching       | Practicals/<br>Tutorials | Tests | V                   |                                                                                                             |
|                | 4                        |       | Organic Chemistry   | Identification of organi Compounds Salicylic Acid A- Napthol,M nitroanline,Ethyl methy ketone,P nitrophenol |

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Sign of the Principal

**Principal** 

Yashwantrao Chavan Mahavidvalava URUN-ISLAMPUR, (Dist. Sung

OAC CO-ORDINATOR

Teachers Name: Miss. A.P. Dhotre

Subject : Physics

Class: B.Sc Part - II (Sem IV)

Paper No: VII

Paper Title:

#### THERMAL PHYSICS AND STATISTICAL MECHANICS - II

|                   |                          |       | Topic /Unit                                                                                 | Sub-units Planned                                                                                           |
|-------------------|--------------------------|-------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Month: Apr        | il                       |       | Unit I:                                                                                     | Enthalpy, Gibbs,<br>Helmholtz, Internal Energy                                                              |
| Teaching Day      | ys                       | 17    | 1) Thermodynamic                                                                            |                                                                                                             |
| Periods Allotted  |                          | 9     | Potentials                                                                                  | functions,                                                                                                  |
| Periods Available |                          | D     |                                                                                             |                                                                                                             |
| Teaching          | Practicals/<br>Tutorials | Tests | Practical 1.To determine the Resolving Power of a Plane Diffraction Grating.                |                                                                                                             |
| 5                 | 4                        |       |                                                                                             |                                                                                                             |
| Month: May        | V                        | ni .  | 1) Thermodynamic                                                                            | Maxwell's thermo                                                                                            |
| Teaching Da       |                          | 25    | Potentials                                                                                  | dynamical                                                                                                   |
| Periods Allo      |                          | 10    |                                                                                             | relations, Joule-Thomson                                                                                    |
| Periods Available |                          |       | effect, Clausius- Clapeyron equation, Expression for                                        |                                                                                                             |
| Teaching          | Practicals/<br>Tutorials | Tests | Practical 2.To determine wavelength of sodium light using diffraction due to straight edge. | (CP – Cv),                                                                                                  |
| 6                 | 4                        |       |                                                                                             |                                                                                                             |
| Month: Jun        | ie                       |       |                                                                                             | C <sub>P</sub> /C <sub>V</sub> , TdS equations.                                                             |
| Teaching Da       | ays                      | 26    |                                                                                             | Phase space, Microstate and                                                                                 |
| Periods Allo      | otted                    | 11    |                                                                                             |                                                                                                             |
| Periods Ava       | ilable                   |       | Unit II: Statistical                                                                        |                                                                                                             |
| Teaching          | Practicals/              | T     | Mechanics 1) Classical statistics  Practical                                                | Macro state, Accessible microstates, priory probability thermodynamic probability probability distribution, |
|                   | Tutorials Tests          |       | 3.Goniometer I-To study cardinal points of optical system.                                  |                                                                                                             |
| 7                 | 4                        |       |                                                                                             | * .0                                                                                                        |

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Principal

Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sano

IQAC CO-ORDINATOR Y. C. COLLEGE, ISLAMPUR

| Month: July      | y                        |       | 1) Classical statistics                                                                                                                                | Maxwell-Boltzmann                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------|--------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Teaching Days 26 |                          | 26    |                                                                                                                                                        | distribution law,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Periods Allo     | tted                     | 15    |                                                                                                                                                        | evaluation of constants α                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Periods Ava      | ilable                   |       | n                                                                                                                                                      | 10.00 mm of 10.00 |
| Teaching         | Practicals/<br>Tutorials | Tests | Practical 4. Goniometer II- To study the equivalent focal length of optical system. 5. To study angle of specific rotation of sugar using Polarimeter. | and β, Entropy and Thermodynamic probability, Distribution of molecular speeds                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 7                | 8                        |       |                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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IQAC CO-ORDINATOR
Y. C. COLLEGE, ISLAMPUR

SEAL SEAL STATE

Principal
Yashwantrao Chavan Mahavidyalaya
URUN-ISLAMPUR, (Dist. Sang

### YASHWANTRAO CHAVAN COLLEGE, ISLAMPUR ANNUAL TEACHING PLAN 2020-21

Teachers Name: Miss. N. S. Atugade

Subject : Physics

Class: B.ScPart - II(Sem IV)

Paper No: VII

Paper Title: Thermal Physics And Statistical Mechanics II

Wave And Optics II

|                                       | A                        |                                                           | Topic /Unit                                                                                                                                                                        | Sub-units Planned                                          |
|---------------------------------------|--------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| Month: A                              | pril                     |                                                           | Unit I:                                                                                                                                                                            | Black Body Radiation and its                               |
| Teaching I                            | Days                     | 17                                                        | 2. Theory of Radiation                                                                                                                                                             | importants, Black Body in                                  |
| Periods Allotted                      |                          | 9                                                         |                                                                                                                                                                                    | practice, Wien's black body,                               |
| Periods Available                     |                          |                                                           | Practical                                                                                                                                                                          | Experimental study of black body                           |
| Teaching                              | Practicals / Tutorials   | Tests                                                     | 1. Stefans fourth power law                                                                                                                                                        | radiation spectrum, Energy density.                        |
| 5                                     | 4                        |                                                           |                                                                                                                                                                                    |                                                            |
| Month: M                              | Month: May               |                                                           | 2.Theory of Radiation                                                                                                                                                              | Derivation of planks law,                                  |
| Feaching Days 25                      |                          | 25                                                        |                                                                                                                                                                                    | deduction of wien's distribution                           |
| Periods Allotted                      |                          | 10                                                        |                                                                                                                                                                                    | law, Rayleigh Jean's law, Stefens                          |
| Periods Allotted 10 Periods Available |                          |                                                           | Boltzman law, wien's displacement law.                                                                                                                                             |                                                            |
| Teaching                              | Practicals/<br>Tutorials | Tests                                                     | Practical 2. To determine specific heat of Graphite                                                                                                                                | displacement law.                                          |
| 6                                     | 4                        |                                                           |                                                                                                                                                                                    |                                                            |
| Month: Ju                             | ine                      |                                                           | Paper VIII                                                                                                                                                                         |                                                            |
| Teaching Days 26                      |                          | Unit II:                                                  | Introduction, Principle o                                                                                                                                                          |                                                            |
| Periods Al                            | lotted                   | 10                                                        | 1) Interference                                                                                                                                                                    | superposition, coherence and<br>conditions of interference |
| Periods Av                            | vailable                 | 1                                                         |                                                                                                                                                                                    |                                                            |
| Teaching                              | Practicals/<br>Tutorials | Tests                                                     | Practical 3.Post office Box                                                                                                                                                        | division of amplitude and wavefront.                       |
| 6                                     | 4                        |                                                           |                                                                                                                                                                                    |                                                            |
| Month: July                           |                          | Practical 4. Mechanical equivalent of heat J by Callender | Lloyds single mirror(determination of wavelength of light of monochromatic source), Wedge shaped film, Newton's ring and application of determine wavelength and refractive index. |                                                            |
| Tanahina                              | Dave                     | 26                                                        | and Branes constant flow method.                                                                                                                                                   |                                                            |
| Teaching Pariods A                    |                          | La company                                                |                                                                                                                                                                                    |                                                            |
| Periods A                             | Periods Allotted 15      |                                                           |                                                                                                                                                                                    |                                                            |

| Periods Av | Periods Available        |       | 5.Determine the                                                  |  |
|------------|--------------------------|-------|------------------------------------------------------------------|--|
| Teaching   | Practicals/<br>Tutorials | Tests | residents of filament of bulb estimate temperature of given film |  |
| 7          | 8                        |       |                                                                  |  |

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Sign of the Principal

IOAC CO-ORDINATOR
Y. C. COLLEGE, ISLAMPUR

COLL SEAL ST

Principal

Yashwantrao Chavan Mahavidyalaya

URUN-ISLAMPUR, (Dist. Sang

Subject : Chemistry

Class: B.Sc Part - II (Sem - IV)

Paper No:VIII

Paper Title: Organic chemistry

|                  |                          |       | Topic /Unit                | Sub-units Planned                                                                                                                                                                                             |  |
|------------------|--------------------------|-------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Month: Apr       | il                       |       | Unit 1:                    | Formation of Halo Acids,                                                                                                                                                                                      |  |
| Teaching Day     | ys                       | 17    | Carboxylic acids and their | Mono, Di, Tri- chloro acetic                                                                                                                                                                                  |  |
| Periods Allotted |                          | 8     | derivatives.               | acid.                                                                                                                                                                                                         |  |
| Periods Avai     | lable                    |       |                            | Acid anhydride derivative:<br>Method of formation of                                                                                                                                                          |  |
| Teaching         | Practicals/<br>Tutorials | Tests |                            | acetic anhydride by<br>dehydration of acetic acid,<br>reactions with water,<br>alcohol and ammonia, uses<br>of acetic anhydride.                                                                              |  |
| 8                | -                        |       |                            |                                                                                                                                                                                                               |  |
| Month: may       | 7                        |       | Unit 2:                    | Introduction, Classification,                                                                                                                                                                                 |  |
| Teaching Da      | ys                       | 25    | Amines and Diazonium       | Nomenclature, structure.                                                                                                                                                                                      |  |
| Periods Allotted |                          | 10    | Salts:                     | Reactions: Replacement by                                                                                                                                                                                     |  |
| Periods Avai     | lable                    |       |                            | Halogen(Sandmeyer),<br>Replacement by Iodine.                                                                                                                                                                 |  |
| Teaching         | Practicals/<br>Tutorials | Tests |                            | Replacement by OH, C<br>and NCoupling reactions:<br>Synthesis of Methyl orange<br>and Congo red.Reduction of<br>BDC.                                                                                          |  |
| 10               |                          |       |                            | 8                                                                                                                                                                                                             |  |
| Month: Jun       | e                        |       | Unit 4: Carbonyl           | Introduction,                                                                                                                                                                                                 |  |
| Teaching Da      | ıys                      | 26    | Compounds- aldehydes       | Nomenclature, structure.                                                                                                                                                                                      |  |
| Periods Allo     | tted                     | 10    | and Ketone                 | Reactivity of Carbonyl                                                                                                                                                                                        |  |
| Periods Ava      | ilable                   |       |                            | group, mechanism of                                                                                                                                                                                           |  |
| Teaching         | Practicals/<br>Tutorials | Tests |                            | Nucleophilic addition to<br>Carbonyl group Reactions:<br>mechanism and application<br>of Aldol condensation.<br>Perkin reaction, Cannizaros<br>reaction, Knoevenage<br>condensation, Reformatsky<br>reaction. |  |
|                  |                          |       | Unit 5: Stereochemistry    |                                                                                                                                                                                                               |  |
| 10               | -                        |       |                            |                                                                                                                                                                                                               |  |
| Month: Jul       | y                        |       | Unit 5: Stereochemistry    | Cycloalkenes relative                                                                                                                                                                                         |  |
| Teaching Da      | ays                      | 26    |                            | stability - Baeyer's strain                                                                                                                                                                                   |  |

| Periods Allotted |                          | 10    | theory, Theory of stainless                                                                                                                                                               |
|------------------|--------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Periods Ava      | Practicals/<br>Tutorials | Tests | rings. Conformations and stability of cyclohexane and monosubstituted cyclohexane Cyclohexanol, bromocyclohexane and methyl cyclohexane.  Locking of conformation in t-butyl cyclohexane. |
| 10               |                          |       | t outy. cycloticianic                                                                                                                                                                     |

Sign of the Teacher

Sign of the Head

Sign of the Principal

IQAC CO-ORDINATOR
Y. C. COLLEGE, ISLAMPUR

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Principal

Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang

### YASHWANTRAO CHAVAN COLLEGE, ISLAMPUR **ANNUAL TEACHING PLAN** 2020-21

Subject : Chemistry

Class

: B.Sc Part - II ( Sem - IV)

Paper No: VII

Paper Title : Inorganic Chemistry

|                    |                          |                 | Topic /Unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Sub-units Planned                                                                                                                      |
|--------------------|--------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Month: Apri        | 1                        |                 | 1. Coordination                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Definition & formation of                                                                                                              |
| Teaching Day       |                          | 6               | Chemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | coordinate covalent bond,                                                                                                              |
| Periods Allotted 6 |                          |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                        |
| Periods Available  |                          |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                        |
| Teaching           | Practicals/<br>Tutorials | Tests           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                        |
| Month: May         |                          | 1. Coordination | Werner's Coordination Theory with                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                        |
| Teaching Day       |                          | 16              | Chemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | example, Description of short                                                                                                          |
| Periods Allot      |                          | 17              | Chemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | terms, IUPAC Nomenclature,                                                                                                             |
| Periods Avail      |                          | 17              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Isomerism in C.N 4 & 6                                                                                                                 |
| Teaching           | Practicals/<br>Tutorials | Tests           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | complexes, VBT of transition metal                                                                                                     |
|                    |                          | 1               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                        |
| Month: June        |                          | ,               | 2. Chelation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Structural requirements of chelate                                                                                                     |
| Teaching Day       |                          | 15              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | formation, Difference betwee                                                                                                           |
| Periods Allotted   |                          | 15              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | metal chelate & metal complex<br>Classification of chelating ligands<br>Applications of chelation wit                                  |
| Periods Avai       | Periods Available        |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                        |
| Teaching           | Practicals/<br>Tutorials | Tests           | 3. p-block elements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | chelating agents  Position of elements, Electronic configuration & Properties Compounds of group 13, 14, 15 – Borane-Diborane Borazine |
|                    |                          | 1               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                        |
| Month: July        |                          |                 | 3. p-block elements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Allotropes of Carbon &<br>Phosphorus, Oxyacids of Nitrogen                                                                             |
| Teaching Da        |                          | 15              | and the same of th |                                                                                                                                        |
| Periods Allot      |                          | 14              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Hydrides of Nitrogen                                                                                                                   |
| Periods Avai       | lable                    |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                        |
| Teaching           | Practicals/<br>Tutorials | Tests           | 4.Chemistry of elements of 3d transition series                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Characteristics                                                                                                                        |
|                    |                          | 1               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                        |
| Month: Aug         | ust                      |                 | 4.Chemistry of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Oxidation state, Colored ions                                                                                                          |
| Teaching Da        | iys                      | 6               | elements of 3d                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                        |
| Periods Allo       | tted                     | 5               | transition series                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 200                                                                                                                                    |
| Periods Avai       | ilable                   |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                        |
| Teaching           | Practicals/<br>Tutorials | Tests           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                        |
|                    |                          | 1               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                        |

Sign of the Teacher

Sign of the Head

Sign of the Principal

Principal

Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sano

**IOAC CO-ORDINATOR** 

Teachers Name : Jagatap Nilesh Ramesh

Subject : Computer Science

Paper No: DSC-11D

Class

: B. Sc. Part II (Sem - IV)

Paper Title: Cyber Security

| Month: May                   |                          | Topic /Unit | Sub-units Planned       |                                                                                                                                                                      |
|------------------------------|--------------------------|-------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: Ma                    |                          | 725         | Unit – 1: - Information | <ul> <li>Information Security</li> </ul>                                                                                                                             |
| Teaching Da<br>Periods Allo  |                          | 26          | Security Management     | Overview:                                                                                                                                                            |
| The control of the second    |                          | 4           |                         | • E-commerce Security,                                                                                                                                               |
| Periods Ava                  | Periods Available        |             |                         | dimensions of E-                                                                                                                                                     |
| Teaching 3                   | Practicals/<br>Tutorials | Tests       |                         | <ul> <li>commerce security,</li> <li>protocols, Computer Forensics,</li> <li>Steganography,</li> <li>Security Management-Overview of Security Management,</li> </ul> |
| Month:June                   | 1                        |             |                         |                                                                                                                                                                      |
|                              |                          | 125         |                         | <ul> <li>Information Classification</li> </ul>                                                                                                                       |
| Teaching Da<br>Periods Allor |                          | 25          |                         | Process, Security Policy,                                                                                                                                            |
| Periods Avai                 |                          | 4           | _                       | Risk Management, Security Procedures and                                                                                                                             |
| Teaching                     | Practicals/<br>Tutorials | Tests       |                         | Guidelines, Business Continuity and Disaster Recovery, Ethics and Best Practices.                                                                                    |
| 2                            | 2                        |             |                         | Tractices.                                                                                                                                                           |
| Month: July                  |                          |             | Unit – II: Network      | Wireless Network                                                                                                                                                     |
| Teaching Day                 | ys                       | 22          | Security, Access        | Security-     Wi-FiSecurity, Risk of                                                                                                                                 |
| Periods Allot                | ted                      | 6           | Controls , Cyber        |                                                                                                                                                                      |
| Periods Avai                 | lable                    |             | Security and Cyber      | Using Unsecured Wi-Fi,                                                                                                                                               |
| Teaching                     | Practicals/<br>Tutorials | Tests       | Laws                    | <ul> <li>Bluetooth and its</li> <li>Access Controls:         <ul> <li>Overview of</li> <li>Authentication and</li> <li>Authorization,</li> </ul> </li> </ul>         |
| 4                            | 2                        |             |                         |                                                                                                                                                                      |
| Month: Aug                   |                          |             |                         | Overview of Intrusion                                                                                                                                                |
| Feaching Day                 | 1000                     | 26          |                         | Detection Systems.                                                                                                                                                   |
| Periods Allot                | ted                      | 5           |                         | Cyber Security: Email                                                                                                                                                |
| Periods Avail Teaching       | able Practicals/         | Tact        |                         | security: PGP and SMIME, Web Security  Cyber Security Laws                                                                                                           |
| LEGA-                        | Tutorials                | 1/0/        | SEAL OF                 | <ul> <li>International Standards,<br/>Security Audit- Need,<br/>importance</li> </ul>                                                                                |
| 0                            | 1                        | ( × (       | SEAL ) g !              | Principal                                                                                                                                                            |

**IQAC CO-ORDINATOR** 

Yashwantrao Chavan Mahavidyalava URLINIEL AMOUD (D:

### YASHWANTRAO CHAVAN COLLEGE, ISLAMPUR ANNUAL TEACHING PLAN 2020-21

Subject: Chemistry

Class: B.Sc. Part - III (Sem - V)

Paper No: XI

Paper Title: Physical Chemistry

|                  | e-perilli bioce do liza (65) |           | Topic /Unit    | Sub-units Planned                                                                                                                                                                                                                                     |  |
|------------------|------------------------------|-----------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Month: No        | vember                       |           | Photochemistry | Introduction                                                                                                                                                                                                                                          |  |
|                  |                              | 20        |                | Laws of Photochemistry                                                                                                                                                                                                                                |  |
| Periods Allotted |                              | 8         |                | Quantum yield or Quantum efficiency                                                                                                                                                                                                                   |  |
| Periods Av       | ailable                      |           |                | Factors affecting Quantum yield                                                                                                                                                                                                                       |  |
| Teaching         | Practicals/<br>Tutorials     | Tests     |                | <ul> <li>Photosensitized reactions</li> <li>Examples of photochemical reactio</li> <li>Photophysical and photochemic processes</li> <li>Jablonski diagram</li> <li>Chemiluminescence</li> <li>Electroluminescence</li> <li>Bioluminescence</li> </ul> |  |
| 8                |                              | 1         |                |                                                                                                                                                                                                                                                       |  |
| Month: De        | ecember                      | 26 POSC C | Solutions      | Introduction                                                                                                                                                                                                                                          |  |
| Teaching D       | ays                          | 13        |                | • Raoult's law, ideal and non-idea                                                                                                                                                                                                                    |  |
| Periods Allotted |                              | 6         |                | solutions                                                                                                                                                                                                                                             |  |
| Periods Av       | ailable                      |           |                | <ul> <li>Composition of liquid and vapor</li> <li>Solubility of partially miscible liquid</li> </ul>                                                                                                                                                  |  |
| Teaching         | Practicals/<br>Tutorials     | Tests     |                | Vapor pressure and distillation<br>immiscible liquids                                                                                                                                                                                                 |  |
| 6                |                              | 1         |                |                                                                                                                                                                                                                                                       |  |
| Month: Ja        | nuary                        |           | Spectroscopy   | • Introduction                                                                                                                                                                                                                                        |  |
| Teaching I       | Days                         | 22        |                | <ul> <li>Electromagnetic radiation</li> </ul>                                                                                                                                                                                                         |  |
| Periods Al       | lotted                       | 10        |                | Electromagnetic spectrum                                                                                                                                                                                                                              |  |
| Periods Av       | ailable                      |           |                | Rotational spectra of diatomi                                                                                                                                                                                                                         |  |
| Teaching         | Practicals/<br>Tutorials     | Tests     |                | molecules  • Vibrational spectra of diatomic molecules  • Raman spectra  • Comparative study of IR and Rama spectra, rule of mutual exclusion- CO molecule                                                                                            |  |
| 10               |                              | 1         |                |                                                                                                                                                                                                                                                       |  |
| Month: Fo        | ebruary                      |           | Electromotive  | • Introduction                                                                                                                                                                                                                                        |  |
| Teaching I       | Days                         | 22        | Force          | • Thermodynamics of electrod                                                                                                                                                                                                                          |  |
| Periods Al       | lotted                       | 6         |                | potentials (Nernst equation for                                                                                                                                                                                                                       |  |
| Periods Av       | vailable                     |           |                | electrode & potential)                                                                                                                                                                                                                                |  |

| Teaching        | Practicals/<br>Tutorials | Tests         |                                                       | E.M.F. series (standard electrode potentials)     Types of electrodes |
|-----------------|--------------------------|---------------|-------------------------------------------------------|-----------------------------------------------------------------------|
| 6               |                          |               |                                                       |                                                                       |
| Month: March    |                          | Electromotive | <ul> <li>Reversible and irreversible cells</li> </ul> |                                                                       |
| Teaching Days 1 |                          | 15            | Force                                                 | • Equilibrium constants from cell                                     |
| Periods Al      | lotted                   | 6             |                                                       | E.M.F.                                                                |
| Periods Av      | ailable                  |               |                                                       | • Applications of E.M.F. measurements                                 |
| Teaching        | Practicals/<br>Tutorials | Tests         |                                                       | • Exercises                                                           |
| 5               |                          | 1             |                                                       |                                                                       |

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Sign of the Head

Sign of the Principal

IQAC CO-ORDINATOR

Y.C. COLLEGE PLANTS

Principal
Yashwantrao Chayan Mahavidyalaya

URUN-ISLAMPUR, (Dist. Sang

Teachers Name :Sali Neha Nitin

Subject : Mathematics IX

Class : B. Sc. Part III (Sem V)

Paper Title: Mathematical Analysis

|                   | -                         |         | Topic /Unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Sub-units Planned                                                             |  |
|-------------------|---------------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|--|
| Month: No         | ovember                   |         | Unit -1: Riemann                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Definition of Riemann integration,                                            |  |
| Teaching D        | ays                       | 17      | Integration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Inequalities for lower and upper Darboux                                      |  |
| Periods All       | otted                     | 7       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | sums, Necessary and sufficient conditions for Riemann integrability.          |  |
| Periods Available |                           |         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                               |  |
| Teaching          | Practicals / Tests        |         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                               |  |
| 7                 | -                         |         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                               |  |
| Month:Dec         | cember                    |         | CCPM- V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Definition of Riemann integration by                                          |  |
| Teaching D        | Carry of the Conservation | 26      | Experiment No. 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Riemann sum and equivalence of the two                                        |  |
| Periods All       |                           | 16      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | definitions, Riemann integrability of                                         |  |
| Periods Av        | TAN COLUMN                | 10      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | monotonic functions, continuous functions                                     |  |
| Teaching          | Practicals/<br>Tutorials  | Tests   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ¥.                                                                            |  |
| 12                | 4                         |         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                               |  |
| Month: Ja         | nuary                     |         | CCPM- V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Algebra and properties of Riemann                                             |  |
|                   |                           | 24      | Experiment No. 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | integrable functions, First and second                                        |  |
| Periods All       | otted                     | 13      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | fundamental theorems of integral calculu and the integration by parts.        |  |
| Periods Ava       | ailable                   |         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                               |  |
| Teaching          | Practicals/<br>Tutorials  | Tests   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                               |  |
| 9                 | 4                         | 357     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                               |  |
| Month:Feb         | ruary                     |         | Unit -2 : Improper                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Improper Integrals: Definition of improper                                    |  |
| Teaching D        | ays                       | 24      | Integrals and Fourier                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | integral of first kind, Comparison test u -                                   |  |
| Periods All       | otted                     | 14      | Series<br>CCPM- V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | test for Convergence, Absolute and conditional convergence, Integral test for |  |
| Periods Ava       | ailable                   |         | Experiment No. 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | convergence of series                                                         |  |
| Teaching          | Practicals/<br>Tutorials  | Tests   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 10                                                                            |  |
| 10                | 4                         |         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                               |  |
| Month: Ma         | arch                      |         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Definition of improper integral of second                                     |  |
| Teaching D        | ays                       | 25      | CCPM- VI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | kind and some tests for their convergence,                                    |  |
| Periods Allotted  |                           | 14      | Experiment No. 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Cauchy principle value.                                                       |  |
| Periods Available |                           |         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                               |  |
| Teaching          | Practicals/<br>Tutorials  | Tests   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                               |  |
|                   |                           | MPUR !! | M. Committee of the com | 1                                                                             |  |

Hall: Teacher

**IQAC CO-ORDINATOR** 

Y. C. COLLEGE, ISLAMPUR

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Principal

Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang

Teachers Name : Jadhav Megharani Chandrakant

Subject : Mathematics X

Class : B. Sc. Part III (Sem V)

Paper Title: Abstract Algebra

|                                |                          |       | Topic /Unit                     | Sub-units Planned                                           |  |
|--------------------------------|--------------------------|-------|---------------------------------|-------------------------------------------------------------|--|
| Month: Nov                     | ember                    |       | Unit -1:Groups and Rings        | Groups: Definition and                                      |  |
| Teaching Day                   | VS.                      | 17    |                                 | examples of groups, group S3 and Dihedral group             |  |
| Periods Allot                  |                          | 7     |                                 |                                                             |  |
| Periods Available              |                          |       |                                 | D4,Commutator subgroups and                                 |  |
| Teaching Practicals/ Tutorials |                          | Tests |                                 | its properties, Conjugacy in group and class equation.      |  |
| 7                              |                          |       |                                 |                                                             |  |
| Month: Dec                     | ember                    |       | CCPM-IV                         | Rings: Definition and example                               |  |
| Teaching Da                    | ys                       | 26    | Experiment No. 2                | of Rings, Ring with unity. Zero                             |  |
| Periods Allot                  | ted                      | 16    | 8                               | divisor, Integral Domain,                                   |  |
| Periods Avai                   | lable                    |       |                                 | Division Ring, Field, Boolean ring, Subring.                |  |
| Teaching                       | Practicals/<br>Tutorials | Tests |                                 | ing, subring.                                               |  |
| 12                             | 4                        |       |                                 |                                                             |  |
| Month: Jan                     | uary                     |       | CCPM- IV                        | Characteristic of a ring:                                   |  |
| Teaching Days                  |                          | 24    | Experiment No.4                 | Nilpotent and Idempotent                                    |  |
| Periods Allot                  | ted                      | 13    |                                 | elements. Ideals, Sum of two ideals, Examples. Simple Ring. |  |
| Periods Avai                   | lable                    |       |                                 |                                                             |  |
| Teaching                       | Practicals/<br>Tutorials | Tests |                                 |                                                             |  |
| 9                              | 4                        |       |                                 |                                                             |  |
| Month: Feb                     | ruary                    |       | Unit-2: Homomorphism and        | Quotient Rings,                                             |  |
| Teaching Da                    | ys                       | 24    | Imbedding of Ring ,             | Homomorphism, Kernel of                                     |  |
| Periods Allot                  | ited                     | 14    | Polynomial Ring and Unique      | Homomorphism                                                |  |
| Periods Avai                   | lable                    |       | Factorization Domain.  CCPM- IV |                                                             |  |
| Teaching                       | Practicals/<br>Tutorials | Tests | Experiment No. 6                | s                                                           |  |
| 10                             | 4                        |       |                                 |                                                             |  |
| Month: Mai                     | ch                       |       | CCPM- VI                        | Isomorphism                                                 |  |
| Teaching Da                    | ys                       | 25    | Experiment No. 4                | theorems,imbedding of Ring.                                 |  |
| Periods Allotted               |                          | 14    |                                 | Maximal Ideals)                                             |  |
| Periods Available              |                          |       |                                 |                                                             |  |
| Teaching                       | Practicals/<br>Tutorials | Tests |                                 |                                                             |  |
| 10                             | 4                        |       |                                 |                                                             |  |

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Yashwantrao Chavan Mahavidyalaya
URUN-ISLAMPUR, (Dist. Sang

Sign of the Principal

IQAC CO-ORDINATOR

2020-2021

Teachers Name :Jadhav Megharani Chandrakant

Subject : Mathematics XI

Class : B. Sc. Part III (Sem V)

Paper Title: Optimization Techniques

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |       | Topic /Unit                    | Sub-units Planned                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------|--------------------------------|----------------------------------------------------------------------------------------|
| Month: No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | vember                   |       | Unit-1 Network                 | Introduction ,Formulation of LPP,                                                      |
| Teaching Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ays                      | 17    | optimization models - CCPM- IV | Graphical methods for LPP. General formulation of LPP, Slack and surplus               |
| Periods Allo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | otted                    | 11    | Experiment No.1                | variables ,Canonical form, Standard form of                                            |
| Periods Ava                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | iilable                  |       |                                | LPP. Transportation problem.                                                           |
| Teaching Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | Tests |                                | Introduction, Matrix form of Transportation problem.                                   |
| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 4                        |       |                                |                                                                                        |
| Month: De                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | cember                   |       | CCPM- IV                       | Feasible solution, Basic feasible solution                                             |
| Teaching D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ays                      | 26    | Experiment No.3                | and optimal solution, Balanced and unbalanced transportation problems.                 |
| Periods Allo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | otted                    | 16    | 1                              | Methods of Initial basic feasible solutions:                                           |
| Periods Ava                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | iilable                  |       |                                | North west corner rule, Lowest cost entry                                              |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Practicals/<br>Tutorials | Tests |                                | method, Vogel's Approximation method<br>,The optimality test.                          |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4                        |       |                                |                                                                                        |
| Month: Jar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | nuary                    |       |                                | Assignment Models :Introduction                                                        |
| The second secon |                          | 24    |                                | .Mathematical formulation of assignment                                                |
| Periods Alle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          | 10    |                                | problem, Hungarian method for assignment problem. Unbalanced assignment                |
| Periods Ava                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ailable                  |       |                                | problem.Travelling salesman problem.                                                   |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |       |                                |                                                                                        |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |       |                                |                                                                                        |
| Month: Fel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | bruary                   |       | Unit-2Quantitative             | Game theory: Basic definitions, Minimax                                                |
| Teaching D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ays                      | 24    | techniques                     | [Maximin] Criterion and optimal strategy,                                              |
| Periods Alle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | otted                    | 13    | CCPM- VI<br>Experiment No.1    | Saddle point, optimal strategy and value of game. Solution of games with saddle point. |
| Periods Ava                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ailable                  |       |                                | Fundamental theorem of game theory [                                                   |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Practicals/<br>Tutorials | Tests | a.                             | Minimax theorem]                                                                       |
| 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 4                        |       |                                |                                                                                        |
| Month: Ma                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | arch                     |       |                                | Two by two (2 X 2) games without saddle                                                |
| Teaching D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ays                      | 25    | CCPM- VI                       | point. Algebraic method of Two by two (2 X                                             |
| Periods All                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | otted                    | 14    | Experiment No. 5               | 2) games. Arithmetic method of Two by two (2 X 2) games.                               |
| Periods Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |       | (2 × 2) games.                 |                                                                                        |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Practicals/<br>Tutorials | Tests |                                |                                                                                        |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4                        |       |                                |                                                                                        |

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Yashwantrao Chavan Mahavidyalaya
URUN-ISLAMPUR, (Dist. Sang

2020-2021

Teachers Name :Sali Neha Nitin

Subject : Mathematics XII

Class : B. Sc. Part III (Sem V)

Paper Title: Integral Transform

|                      |                          |       | Topic /Unit                | Sub-units Planned                                                                                           |  |
|----------------------|--------------------------|-------|----------------------------|-------------------------------------------------------------------------------------------------------------|--|
| Month: No            | ovember                  |       | Unit: 1 Laplace and        | Laplace Transform : Definitions; Piecewise                                                                  |  |
| Teaching D           | ays                      | 17    | Inverse Laplace Transform. | continuity, Function of exponential order,<br>Function of class A ,Existence theorem of                     |  |
| Periods Alle         | otted                    | 10    | CCPM- V                    | Laplace transform. Laplace transform of                                                                     |  |
| Periods Ava          | Periods Available        |       | Experiment No.2            | standard functions, theorems and examples,                                                                  |  |
| Teaching             |                          |       |                            | Change of scale property and examples.                                                                      |  |
| 6                    | 4                        |       |                            |                                                                                                             |  |
| Month: De            | cember                   |       |                            | Laplace transform of derivatives and                                                                        |  |
| Teaching D           | ays                      | 26    | CCPM- V                    | examples, Laplace transform of integralsand                                                                 |  |
| Periods Alle         | otted                    | 16    | Experiment No. 4           | examples.Multiplication by power of tand examples.Division by tand                                          |  |
| Periods Ava          | ailable                  |       | *                          | examples.Laplace transform of periodic                                                                      |  |
| Teaching             | Practicals/<br>Tutorials | Tests |                            | functions and examples.Laplace transform of Heaviside's unit step function.                                 |  |
| 12                   | 4                        |       |                            |                                                                                                             |  |
| Month: Jai           | nuary                    |       | CCPM- V                    | Inverse Laplace Transform: Definition                                                                       |  |
|                      |                          | 24    | Practical No.6             | Standard results of inverse Laplace                                                                         |  |
| Periods Alle         | otted                    | 14    |                            | transform, Examples, Solving linear differential equations with constant coefficients by Laplace transform. |  |
| Periods Ava          | ailable                  |       |                            |                                                                                                             |  |
| Teaching Practicals/ |                          | Tests |                            |                                                                                                             |  |
| 10                   | 4                        |       |                            |                                                                                                             |  |
| Month: Fel           | bruary                   |       | Unit 2 Fourier Transform   | The infinite Fourier transform and inverse.                                                                 |  |
| Teaching D           | ays                      | 24    | CCPM- VI                   | Definition examples Infinite Fourier sine                                                                   |  |
| Periods Alle         | otted                    | 13    | Experiment No. 2           | and cosine transform and examples.                                                                          |  |
| Periods Ava          | ailable                  |       | *                          |                                                                                                             |  |
| Teaching             | Practicals/<br>Tutorials | Tests |                            |                                                                                                             |  |
| 9                    | 4                        |       |                            |                                                                                                             |  |
| Month: Ma            | ırch                     |       |                            | Definition: Infinite inverse Fourier sine and                                                               |  |
| Teaching D           | ays                      | 25    | CCPM- VI                   | cosine transform and examples.Relationship                                                                  |  |
| Periods Allotted     |                          | 14    | Experiment No.6            | between Fourier transform and Laplace transform.                                                            |  |
| Periods Available    |                          |       | warstonn.                  |                                                                                                             |  |
| Teaching             | Practicals/<br>Tutorials | Tests |                            |                                                                                                             |  |
| 10                   | 4                        |       |                            |                                                                                                             |  |

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Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang

### YASHWANTRAO CHAVAN COLLEGE, ISLAMPUR ANNUAL TEACHING PLAN 2020-21

Subject : Chemistry Class : B.Sc Part - III ( Sem - V)

Paper No :XII Paper Title : Analytical Chemistry

|                                        |                          | 3101-1-1 | Topic /Unit                               | Sub-units Planned                                                                                                                                                                                                     |  |
|----------------------------------------|--------------------------|----------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Month: Nov                             | ember                    |          | Potentiometric Titrations                 | Detail study if Quinhydrone                                                                                                                                                                                           |  |
| Teaching Da                            | ys                       | 20       |                                           | and Glass Electrode and                                                                                                                                                                                               |  |
| Periods Allot                          | tted                     | 12       |                                           | their use in Determination                                                                                                                                                                                            |  |
| Periods Available Teaching Practicals/ |                          |          | of pH. Basic circuit of<br>direct reading |                                                                                                                                                                                                                       |  |
| Teaching                               | Practicals/<br>Tutorials | Tests    |                                           | Potentiometre                                                                                                                                                                                                         |  |
|                                        | 2                        |          | Physical Chemistry                        | Chemical Kinetics I, II                                                                                                                                                                                               |  |
| Month: Dec                             | ember                    |          | Colorimetry and                           |                                                                                                                                                                                                                       |  |
| Teaching Da                            | ys                       | 13       | Spectrophotometry                         | Theory of.Colorimetry and                                                                                                                                                                                             |  |
| Periods Allotted                       |                          | 13       |                                           | Spectrophotometry.Lambert<br>Beer's law,deviation from                                                                                                                                                                |  |
| Periods Avai                           | lable                    |          |                                           | Beer's law, deviation from                                                                                                                                                                                            |  |
| Teaching                               | Practicals/<br>Tutorials | Tests    |                                           | methods of colour measurement or comparision. Photoelectric colorimeter, Spectrophotom eter. Applications of colorimetry and Spectrophotometry                                                                        |  |
|                                        | 3                        | 1        | Physical Chemistry                        | Chemical kinetics III & IV<br>Solubility                                                                                                                                                                              |  |
| Month: Jan                             | uary                     |          | Theory of Gravimetric Analysis            | Introduction, Gravimetric analysis by                                                                                                                                                                                 |  |
| Teaching Da                            | ıys                      | 22       |                                           |                                                                                                                                                                                                                       |  |
| Periods Allo                           | tted                     | 12       |                                           | precipitation,nucleation,cry<br>stal                                                                                                                                                                                  |  |
| Periods Ava                            | ilable                   |          | Physical Chemistry                        | growth, digestion/aging, filtr                                                                                                                                                                                        |  |
| Teaching                               | Practicals/<br>Tutorials | Tests    |                                           | ation,drying ignition,weighing. Optimum conditions for good precipitation,Physical nature of precipitate.Purity of precipitate Co- precipitation, Post- precipitation. Organic precipitants and their applications. 2 |  |
| Month: Fel                             | oruary                   |          | Chromatographic                           | Introduction, classification.                                                                                                                                                                                         |  |
| Teaching Da                            |                          | 22       | techniques and Quality                    |                                                                                                                                                                                                                       |  |
|                                        |                          |          | control                                   | Chromatography.lon                                                                                                                                                                                                    |  |
| Periods Allo                           | otted                    | 12       | Control                                   | Exchange                                                                                                                                                                                                              |  |

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| Teaching         | Practicals/<br>Tutorials | Tests |                  | Chromatography.Concepts in Quality control                                                                                                         |
|------------------|--------------------------|-------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
|                  |                          | 1     |                  |                                                                                                                                                    |
| Month: March     |                          |       |                  | Introduction, General                                                                                                                              |
| Teaching Days 15 |                          | 15    | Flame Photometry | principles of flame                                                                                                                                |
|                  |                          | 13    |                  | photometry.  Instrumentation. Effect of                                                                                                            |
|                  |                          |       |                  | solvent in flame                                                                                                                                   |
| Teaching         | Practicals/<br>Tutorials | Tests |                  | photometry.Experimental procedure of analysis. Interference in flame photometry. Applications of flame photometry.Limitations of Flame Photometry. |
|                  |                          | 1     |                  |                                                                                                                                                    |

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URUN-ISLAMPUR, (Dist. Sang

Teachers Name: Miss. A.P.Dhotre

Subject: Physics

Class: B.Sc Part - III (SEMV)

Paper No: IX

Paper Title: MATHEMATICAL PHYSICS

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           | Topic /Unit                                                                        | Sub-units Planned                                                                                                                              |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: Nov        | ember                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           | Unit –I                                                                            | Introduction, Method of                                                                                                                        |
| Teaching Da       | ys                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 17        | 1.Partial differential                                                             | separations of variables,                                                                                                                      |
| Periods Allo      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 6         | equation                                                                           | form of two dimensional                                                                                                                        |
| Periods Available |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           | Laplace differential equation in Cartesian co-                                     |                                                                                                                                                |
| Teaching          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |                                                                                    | ordinates,                                                                                                                                     |
| 6                 | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                                    |                                                                                                                                                |
| Month: Dec        | ember                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           | 1.Partial differential                                                             | Three dimensional partial                                                                                                                      |
| Teaching Da       | iys                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 26        | equation                                                                           | differential equation in                                                                                                                       |
| Periods Allo      | tted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 11        |                                                                                    | Cartesian co-ordinates ,                                                                                                                       |
| Periods Avai      | ilable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                                                                                    | differential equation of<br>progressive wave and its                                                                                           |
| Teaching          | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests     | 2.Forbenious method and Special functions Practical 1.Resonance pendulum           | Singular points of second order differential equations                                                                                         |
| 7                 | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                                    |                                                                                                                                                |
| Month: Jan        | uarv                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           | 2. Forbenious method and                                                           | Application of singularity                                                                                                                     |
| Teaching Da       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 24        | Special functions.  Practical                                                      | to Legendre equation Application of singularity to Bessel equation Series solution method of solving second order linear differential equation |
| Periods Allo      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 11        |                                                                                    |                                                                                                                                                |
| Periods Ava       | (22.5.25)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                                                                                    |                                                                                                                                                |
| Teaching          | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests     | 2. S.T. of soap solution                                                           |                                                                                                                                                |
| 7                 | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                                    |                                                                                                                                                |
| Month: Feb        | ruary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           | 2. Frobenious method and                                                           | (Frobenious method) and                                                                                                                        |
| Teaching Da       | Design of the Control | 24        | Special functions.                                                                 | its application to Legendre                                                                                                                    |
| Periods Allotted  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 10        |                                                                                    | differential equation.                                                                                                                         |
| Periods Available |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Practical |                                                                                    |                                                                                                                                                |
| Teaching          | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests     | 3. Y and η using Flat<br>Spiral Spring and<br>Unit II<br>1. Some Special Integrals | Gamma functions,                                                                                                                               |
| )                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |                                                                                    | Properties of Gamma function,                                                                                                                  |

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|--------------------|--------------------------|-------------------------|----------------------------------|-------------------------|
| Month: March       |                          | 1.Some Special Integral | Beta function, Properties        |                         |
| Teaching Days 25   |                          |                         | of Beta function, Relation       |                         |
| Periods Allotted 1 |                          | 1                       |                                  | between Beta and Gamma  |
| Periods Available  |                          |                         | functions, Error function        |                         |
| Teaching           | Practicals/<br>Tutorials | Tests                   | Practical 4.Y by Koenig's method | (Probability Integral). |
| 6                  | 4                        | -                       |                                  |                         |

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Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang

Teachers Name: Miss. A.P.Dhotre

Subject: Physics

Class: B.Sc Part – III (SEM V)

Paper No:XI

Paper Title: classical mechanics and electrodynamics

|                                   |                          |       | Topic /Unit                                                                                                            | Sub-units Planned                                                                                                                                                                                          |
|-----------------------------------|--------------------------|-------|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: Nove                       | mber                     |       | UNIT-I                                                                                                                 |                                                                                                                                                                                                            |
| Teaching Days                     | ;                        | 17    | 1.Lagrangian Formulation                                                                                               | Constraints, Degrees of                                                                                                                                                                                    |
| Periods Allotted 8                |                          | 8     |                                                                                                                        | freedom, Generalized                                                                                                                                                                                       |
| Periods Available                 |                          |       | coordinates, Principle of                                                                                              |                                                                                                                                                                                                            |
| Teaching                          | Practicals/<br>Tutorials | Tests |                                                                                                                        | virtual work, D'Alamberts principle, Lagrange's equation from D'Alamberts principle,                                                                                                                       |
| 8                                 | -                        |       |                                                                                                                        |                                                                                                                                                                                                            |
| Month: Dece                       | mber                     |       | 1.Lagrangian Formulation                                                                                               | Applications of Lagrange's                                                                                                                                                                                 |
|                                   |                          | 26    |                                                                                                                        | equation to a particle in                                                                                                                                                                                  |
| Teaching Days<br>Periods Allotted |                          | 12    | -                                                                                                                      | space, Atwood's machine                                                                                                                                                                                    |
| Periods Availa                    |                          | 1     |                                                                                                                        | and a bead sliding on uniformly rotating wire                                                                                                                                                              |
| Teaching                          | Practicals/<br>Tutorials | Tests | 2.Techniques of Calculus of Variation  Practical: 5. Y by Cornu's spiral                                               | Hamilton's principle,<br>Deduction of Hamilton's<br>principle from D'Alamberts<br>principle,                                                                                                               |
| 8                                 | 4                        |       |                                                                                                                        | D. I. C. C.                                                                                                                                                                                                |
| Month: Janu                       |                          | T     | 2. Techniques of Calculus                                                                                              | Deduction of Lagrange's                                                                                                                                                                                    |
| Teaching Day                      |                          | 24    | of Variation                                                                                                           | equation from Hamilton's principle, Applications-shortest distance between two points in a plane, Brachistochrone problem.  Inertial and non-inertial reference frames, Galilean transformation equations, |
| Periods Allott                    | A1450                    | 12    | Unit II  1.Special Theory of Relativity  6.C program to arrange the given set of numbers in ascending/descending order |                                                                                                                                                                                                            |
| Periods Avail Teaching            | Practicals/<br>Tutorials | Tests |                                                                                                                        |                                                                                                                                                                                                            |

| 8                                 | 4                        |                     |                                                                                   |                                     |
|-----------------------------------|--------------------------|---------------------|-----------------------------------------------------------------------------------|-------------------------------------|
| Month: February                   |                          | 1.Special Theory of | Michelson Morley                                                                  |                                     |
| Teaching Days                     |                          | 24                  | Relativity                                                                        | experiment, postulates of           |
| Periods Allot                     | ted                      | 10                  |                                                                                   | special theory of relativity,       |
| Periods Avai                      | lable                    |                     |                                                                                   | Lorentz transformation equations,   |
| Teaching Practicals/<br>Tutorials |                          | Tests               | 7. C program to find<br>largest/smallest number<br>from a given set of<br>numbers |                                     |
| 6                                 | 4                        |                     |                                                                                   |                                     |
| Month: Mai                        | rch                      | .,                  | 1.Special Theory of                                                               | Length contraction, Time            |
| Teaching Da                       | ys                       | 25                  | Relativity                                                                        | dilation, Variation of mass<br>with |
| Periods Allot                     | tted                     | 6                   |                                                                                   |                                     |
| Periods Available                 |                          | 1                   | velocity, (Mass-energy                                                            |                                     |
| Teaching                          | Practicals/<br>Tutorials | Tests               |                                                                                   | relation.                           |
| 6                                 |                          |                     |                                                                                   |                                     |

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Teachers Name: Miss. N.S.Atugade

Subject: Physics

Class: B.Sc Part - III (Sem - V)

Paper No: XII

Paper Title: Digital and analogue circuit and

Instrumentation

|                                  |                          |                | Topic /Unit                                                                               | Sub-units Planned                                                                                                    |
|----------------------------------|--------------------------|----------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Month: Nov                       | ember                    |                | Unit –I                                                                                   | Introduction, digital logic                                                                                          |
| Teaching Days 17                 |                          | 17             | Digital electronics                                                                       | gates, derived gates, De                                                                                             |
| 0 /                              |                          | 14             |                                                                                           | Morgan's theorem, NAND                                                                                               |
| Periods Available                |                          |                | and NOR as universal Gates,R-S flip flop,J-K flip                                         |                                                                                                                      |
| Teaching                         | Practicals/<br>Tutorials | Tests          |                                                                                           | flop,Half adder, full adder,4bit binary adder.                                                                       |
| 14                               | -                        |                |                                                                                           |                                                                                                                      |
| Month: Dec                       | ember                    |                | 2.Transistor amplifier                                                                    | Single stage CE                                                                                                      |
| Month: December Teaching Days 26 |                          | and Sinusoidal | amplifier,D.C,A.C                                                                         |                                                                                                                      |
| Periods Allo                     | tted                     | 22             | Oscillator                                                                                | equivalent circuit, load line                                                                                        |
| Periods Avai                     | ilable                   |                |                                                                                           | analysis, theory of feedback oscillator, frequency                                                                   |
| Teaching                         | Practicals/<br>Tutorials | Tests          | Practical 1.Solar cell                                                                    | response curvetank<br>circuit,Barkhusen criteria,<br>Phase shift oscillator,colpitts<br>Hartley, Crystal Oscillator. |
| 18                               | 4                        |                |                                                                                           |                                                                                                                      |
| Month: Jan                       | uary                     |                | Unit II                                                                                   | Introduction, Block diagram                                                                                          |
| Teaching Days 24                 |                          | 1.Cathod ray   | of CRO, Principle,                                                                        |                                                                                                                      |
|                                  |                          | 20             | Oscilloscope                                                                              | Construction and working of                                                                                          |
| Periods Ava                      | Periods Available        |                | D                                                                                         | CRT, Applicatios of CRO, solved problems.                                                                            |
| Teaching                         | Practicals/<br>Tutorials | Tests          | Practical 3.self inductance by Owens bridge 4.resistance of B.G by half deflection method | Cito, sorved problems.                                                                                               |
| 12                               | 8                        |                |                                                                                           |                                                                                                                      |
| Month: Feb                       | ruary                    |                | 2.Oprational amplifier                                                                    | Introduction, Oprational                                                                                             |
| Teaching Da                      |                          | 24             |                                                                                           | amplifier, differtial amplifier                                                                                      |
| Periods Allo                     |                          | 21             |                                                                                           | and its types, OP-AMPs,                                                                                              |
| Periods Ava                      |                          |                | 2 75                                                                                      | Block diagram of Op-AMP,                                                                                             |
| Teaching                         | Practicals/<br>Tutorials | Tests          | Practical 5. Absolute capacity of condensor 6. Band gap energy                            | OP-AMP as parameter,<br>characteristics of an ideal<br>and practical OP-AMP                                          |
| 13                               | 8                        |                |                                                                                           |                                                                                                                      |

| Month: Mar       | rch       |                        |                                        |                         |
|------------------|-----------|------------------------|----------------------------------------|-------------------------|
| Teaching Days 25 |           | 2.Oprational amplifier |                                        |                         |
|                  |           | 10                     |                                        | Applications of OP-AMP. |
| periods avail    | able      |                        |                                        | ů.                      |
| Teaching         | Practical | Toot                   | Practical                              |                         |
| 2                | 8         | Test                   | 6.Planks constant<br>7.Griffith method |                         |

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Teachers Name : Miss. S.D.Kulkarni

Subject: Chemistry

Class: B. ScPart - III (Sem - V)

Paper No :X

Paper Title: Organic Chemistry

|                                       |                          |              | Topic /Unit                                                                          | Sub-units Planned                                                                                                                     |  |
|---------------------------------------|--------------------------|--------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--|
| Month: Nov                            | ember                    |              | Theory:                                                                              | Nature of electromagnetic                                                                                                             |  |
| Teaching Days                         |                          | 17           | Unit I                                                                               | radiations, Different units                                                                                                           |  |
| Periods Allotted                      |                          | 10           | 1.Introductio to                                                                     | of measurement, Different                                                                                                             |  |
| Periods Available                     |                          | spectroscopy | regions of electromagnetic radiations, energy types and                              |                                                                                                                                       |  |
| Teaching                              | Practicals/<br>Tutorials | Tests        | Practical: 1.Estimation of sucrose                                                   | energy levels of atoms and<br>molecule                                                                                                |  |
| 7                                     | 4                        |              |                                                                                      |                                                                                                                                       |  |
| Month: Dec                            | ember                    |              | Theory:                                                                              | Beer-Lambert's law,                                                                                                                   |  |
| Teaching Da                           | ys                       | 26           | Unit II                                                                              | absorption of UV radiation                                                                                                            |  |
| Periods Allot                         |                          | 16           | UV-Visible spectroscopy                                                              | by organic molecules,                                                                                                                 |  |
| Periods Allotted 16 Periods Available |                          | Practical:   | Terms used in UV                                                                     |                                                                                                                                       |  |
| Teaching                              | Practicals/<br>Tutorials | Tests        | 1.Saponification value of an oil sample 2. picrate derivative                        | spectroscopy, mode of<br>electromagnetic transitions,<br>Effect of conjugation on<br>position of UV bond, color<br>& visible spectrum |  |
| 8                                     | 8                        |              |                                                                                      |                                                                                                                                       |  |
| Month: Jan                            | uary                     |              | Theory: Unit III IR-Spectroscopy                                                     | Principle of spectroscopy, fundamental modes of vibrations, types and                                                                 |  |
| Teaching Da                           | iys                      | 24           |                                                                                      |                                                                                                                                       |  |
| Periods Allo                          | tted                     | 15           |                                                                                      |                                                                                                                                       |  |
| Periods Avai                          | ilable                   |              | Practical:                                                                           | calculations, Hook's law for                                                                                                          |  |
| Teaching                              | Practicals/<br>Tutorials | Tests        | 1.Multicomponentreactionp reparationofdihydropyrimi done     2. iodoform derivative  | calculation of vibrational frequency                                                                                                  |  |
| 7                                     | 8                        |              |                                                                                      |                                                                                                                                       |  |
| Month: Feb                            | ruary                    |              | Theory:                                                                              | Principles PMR                                                                                                                        |  |
| Teaching Da                           | nys                      | 24           | Unit IV                                                                              | spectroscopy, magnetic and                                                                                                            |  |
| Periods Allotted 16                   |                          | 16           | NMR-Spectroscopy                                                                     | non-magnetic nuclei,                                                                                                                  |  |
| Periods Available                     |                          | Practical:   | chemical shift, shielding<br>and deshelling, Merits of                               |                                                                                                                                       |  |
| Teaching                              | Practicals/<br>Tutorials | Tests        | 1.Radical coupling reaction-preparation of 1,12-bis-2-naphthol 2. oxalate derivative | TMS as PMR reference                                                                                                                  |  |
| 8                                     | 8                        |              |                                                                                      |                                                                                                                                       |  |
| Month: Ma                             | rch                      |              | Unit V                                                                               |                                                                                                                                       |  |

| Teaching Day     | ys                       | 26      | Combined Problems based                                                                                |
|------------------|--------------------------|---------|--------------------------------------------------------------------------------------------------------|
| Periods Allotted |                          | 16      | on UV, IR, NMR and Mass                                                                                |
| Periods Avai     | lable                    | 100 0 0 | Spectral data.  Practical:                                                                             |
| Teaching         | Practicals/<br>Tutorials | Tests   | 1.Estimation of molecular weight 2.base catalyzed aldol condensation-preparation of dibenzyl propanone |
| 8                | 8                        |         |                                                                                                        |

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Principal

Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. 5 and

Teachers Name: Miss. P. V. Patil

Subject : Chemistry Paper No: IX

Class : B.Sc Part - III (Sem V)
Paper Title : Inorganic Chemistry

| iper No: IX        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       | Paper Title                                   | : Inorganic Chemistry                                                                                                                                                                                                                                    |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       | Topic /Unit                                   | Sub-units Planned                                                                                                                                                                                                                                        |
| Month: Nov         | ember                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       | 1. Acids, Bases and Non                       | Introduction to theories of                                                                                                                                                                                                                              |
| Teaching Day       | ys                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 6     | aqueous Solvents                              | Acids and Bases                                                                                                                                                                                                                                          |
| Periods Allotted 5 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |                                               |                                                                                                                                                                                                                                                          |
| Periods Available  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       | Hard and Soft Acids and                       |                                                                                                                                                                                                                                                          |
| Teaching           | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests |                                               | Bases (HSAB Concept) -<br>Pearson's HSAB concept,<br>Acid-Base strength and<br>hardness-softness                                                                                                                                                         |
| Month: Dec         | ember                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       | 2. Metal Ligand bonding in                    | Crystal field theory (CFT)                                                                                                                                                                                                                               |
| Teaching Da        | ys                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 15    | Transition Metal                              | Crystal field splitting of d-                                                                                                                                                                                                                            |
| Periods Allot      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 14    | Complexes                                     | orbitals of metal ion in                                                                                                                                                                                                                                 |
| Periods Avai       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |                                               | octahedral, tetrahedral,                                                                                                                                                                                                                                 |
| Teaching           | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests |                                               | square planar complexes and John- Teller distortion, Crystal Field stabilization energy (CFSE)  Molecular orbital theory (MOT) - MOT of octahedral complexes with sigma bonding such as [Ti(H2O)6]3*, [CoF6]3*, [Co(NH3)6]3*, Merits and demerits of MOT |
| Month: Jan         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       | 3. Metals, Semiconductors and Superconductors | Theories of bonding in metal, Semiconductors-                                                                                                                                                                                                            |
| Teaching Da        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 17    |                                               |                                                                                                                                                                                                                                                          |
| Periods Allo       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 16    |                                               | Types, Superconductors:                                                                                                                                                                                                                                  |
| Periods Ava        | ilable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |       |                                               | Ceramic superconductors –                                                                                                                                                                                                                                |
| Teaching           | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests |                                               | Preparation and structures<br>of mixed oxide YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub><br>x, Applications of<br>superconductors                                                                                                                    |
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1     |                                               |                                                                                                                                                                                                                                                          |
| Month: Feb         | ruary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | *     | No. 1921 Edition                              | Synthesis and structural                                                                                                                                                                                                                                 |
| Teaching Da        | THE RESERVE OF THE PARTY OF THE | 14    | 4. Organometallic                             | study of alkyl and aryl                                                                                                                                                                                                                                  |
| Periods Allotted   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 14    | Chemistry                                     | compounds of Be and Al,                                                                                                                                                                                                                                  |
| Periods Ava        | ilable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |       |                                               | Mononuclear carbonyls -<br>Nature of bonding in simpl<br>mononuclear carbonyls                                                                                                                                                                           |
| Teaching           | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests | Inorganic Chemistry                           | Gravimetric Estimation -  1. Gravimetric estimation of iron as ferric oxide (Fe <sub>2</sub> O <sub>3</sub> )                                                                                                                                            |

|                             |                          |       |                     | from the given solution containing ferrous ammonium sulphate, copper sulphate and free sulphuric acid  2. Gravimetric estimation of barium as barium sulphate(BaSO <sub>4</sub> ) from the given solution containing barium chloride, ferric chloride and free hydrochloric acid |
|-----------------------------|--------------------------|-------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | 2                        | 1     | 5.0.1.              | C1 : C . : C . : 1 : C                                                                                                                                                                                                                                                           |
| Month: Mar                  |                          | 12    | 5. Catalysis        | Classification of catalytic reaction, Types of                                                                                                                                                                                                                                   |
| Teaching Da<br>Periods Allo |                          | 13    | -                   | Catalysis, Mechanism of                                                                                                                                                                                                                                                          |
| Periods Ava                 | Manufacture in .         | 12    |                     | catalysis                                                                                                                                                                                                                                                                        |
| Periods Ava                 | liable                   |       | -                   | Catalysis                                                                                                                                                                                                                                                                        |
| Teaching                    | Practicals/<br>Tutorials | Tests | Inorganic Chemistry | Inorganic Preparation - 3. Preparation of Tetra ammine copper (II) chloride.  4. Preparation of tris(thiourea) copper (I)                                                                                                                                                        |
|                             |                          |       |                     | sulphate.                                                                                                                                                                                                                                                                        |
|                             | 2                        | 1     |                     |                                                                                                                                                                                                                                                                                  |

Sign of the Head

Sign of the Principal

IQAC CO-ORDINATOR

2 1100 2 1435 K

Principal
Yashwantrao Chavan Mahavidyalaya
URUN-ISLAMPUR, (Dist. Sang

Teachers Name: Kumbhar Dattatraya Tanaji

Subject : Computer Science

Paper No: DSE-22E

Class: B. Sc. Part III (Sem V)
Paper Title: C# Programming

|                   |                          |       | Topic /Unit                            | Sub-units Planned                                                                                                                   |
|-------------------|--------------------------|-------|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Month: Dec        | ember                    |       | Unit – 1: - Introduction to            | .Net Framework                                                                                                                      |
| Teaching Days     |                          | 26    | .Net                                   | Architecture                                                                                                                        |
| Periods Allotted  |                          | 20    |                                        | <ul> <li>An Overview</li> </ul>                                                                                                     |
| Periods Avai      | lable                    |       |                                        | • CLR,CLS                                                                                                                           |
| Teaching          | Practicals/<br>Tutorials | Tests |                                        | <ul> <li>MSIL,CTS</li> <li>History and Feature of C#</li> <li>Data Type, Value Type</li> <li>Boxing and Unboxing</li> </ul>         |
| 12                | 8                        |       |                                        |                                                                                                                                     |
| Month: Jan        | uary                     |       |                                        | Properties: Set and Get                                                                                                             |
| Teaching Da       |                          | 26    |                                        | Flow control                                                                                                                        |
| Periods Allotted  |                          | 20    |                                        | Braching Statement                                                                                                                  |
| Periods Available |                          |       |                                        | <ul> <li>Looping Staement</li> </ul>                                                                                                |
| Teaching          | Practicals/<br>Tutorials | Tests |                                        | • Structure                                                                                                                         |
| 12                | 8                        |       |                                        |                                                                                                                                     |
| Month: Feb        | ruary                    |       | Unit – II: Object Oriented<br>Concepts | <ul> <li>C# Program Comilation</li> <li>Command Line Arguments</li> <li>Console Application</li> <li>Classes and Objects</li> </ul> |
| Teaching Da       | ys                       | 24    |                                        |                                                                                                                                     |
| Periods Allot     | tted                     | 20    |                                        |                                                                                                                                     |
| Periods Avai      | lable                    |       |                                        |                                                                                                                                     |
| Teaching          | Practicals/<br>Tutorials | Tests |                                        | <ul><li>Inheritance</li><li>Polymorphism</li></ul>                                                                                  |
| 12                | 8                        |       |                                        |                                                                                                                                     |
| Month: Mar        | ch                       |       |                                        | Abstract Classes                                                                                                                    |
| Teaching Da       | ys                       | 26    |                                        | <ul><li>Sealed Classes</li><li>Partial Classes</li></ul>                                                                            |
| Periods Allot     | tted                     | 20    |                                        |                                                                                                                                     |
| Periods Available |                          |       | <ul> <li>Exception Handling</li> </ul> |                                                                                                                                     |
| Teaching          | Practicals/<br>Tutorials | Tests |                                        |                                                                                                                                     |
| 12                | 8                        |       |                                        |                                                                                                                                     |

Sign of the Teacher

**IQAC CO-ORDINATOR** 

Sign of the Head

Principal

Principal

Yashwantrao Chavan Mahavidyalaya

URUN-ISLAMPUR, (Dist. Sang

2020-21

Teachers Name: Kumbhar Dattatraya Tanaji

Subject : Computer Science

Paper No: DSE-23E

Class

: B. Sc. Part III (Sem V)

Paper Title: Linux part- I

| The state of the s | en de la composition della com |       | Topic /Unit                    | Sub-units Planned                                                                                                                                                                 |
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| Month: Dec                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ember                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       | Unit – 1: - Introduction to    | History of Linux                                                                                                                                                                  |
| Teaching Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Teaching Days 26                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |       | Linux                          | Architecture of Linux                                                                                                                                                             |
| Periods Allotted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 20    |                                | Operating System Service                                                                                                                                                          |
| Periods Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       | Shell                          |                                                                                                                                                                                   |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests |                                |                                                                                                                                                                                   |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                                |                                                                                                                                                                                   |
| Month: Jan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | uary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |       |                                | Types of Shell                                                                                                                                                                    |
| Teaching Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ys                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 26    |                                | Kernel                                                                                                                                                                            |
| Periods Allor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | tted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 20    |                                | Login, Logout                                                                                                                                                                     |
| Periods Avai                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | lable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       |                                | General Purpose Utilities                                                                                                                                                         |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests |                                |                                                                                                                                                                                   |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                                |                                                                                                                                                                                   |
| Month: Feb                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ruary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       | System Calls and Process       | <ul> <li>Basic file system<br/>management</li> <li>Files Types, Boot block,</li> </ul>                                                                                            |
| Teaching Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ys                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 24    |                                |                                                                                                                                                                                   |
| Periods Allot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 20    |                                |                                                                                                                                                                                   |
| Periods Avai                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | lable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       |                                | Super block, Inode table                                                                                                                                                          |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests |                                | <ul> <li>Storage and Accessibility of files</li> <li>File and Directory Manipulation commands</li> <li>File ownership and permission</li> <li>Open, Read, Write, Close</li> </ul> |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                                |                                                                                                                                                                                   |
| Month: Mar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3337/                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       |                                | Mounting and Un-                                                                                                                                                                  |
| Teaching Day                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | A MARIAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 26    |                                | mounting File System                                                                                                                                                              |
| Periods Allot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | *                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 20    |                                | Process States and                                                                                                                                                                |
| Periods Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       | Transitions • Process Creation |                                                                                                                                                                                   |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Practicals/<br>Tutorials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tests |                                | <ul> <li>Frocess Creation</li> <li>Signal</li> <li>Invoking Other Programs</li> <li>Process Management</li> </ul>                                                                 |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |                                | - 100000 Management                                                                                                                                                               |

Sign of the Teacher

COLLEGE, ISLAMPUR

Sign of the Head

Sign of the Principal

Principal

Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sano

Teachers Name : Jagatap Nilesh Ramesh

Subject : Computer Science

Paper No: DSE-24E

Class : B. Sc. Part III (Sem V)

Paper Title: Python Part -I

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |              | T                                          | per little : Pytnon Part -1                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------|--------------------------------------------|-------------------------------------------------------------------|
| Month: Dec                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | b                        |              | Topic /Unit                                | Sub-units Planned                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50 REELECTOR (T)         | 26           | Unit – 1: - Introduction                   | History                                                           |
| Teaching Days Periods Allotted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          | Z-oc. Sector | -                                          | • Features                                                        |
| AND THE RESIDENCE OF THE PROPERTY OF THE PROPE |                          | 20           |                                            | <ul><li>Setting up path</li><li>Working with Python</li></ul>     |
| Periods Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |              | _                                          | Basic Syntax                                                      |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Practicals/<br>Tutorials | Tests        |                                            | basic syntax                                                      |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 8                        |              |                                            |                                                                   |
| Month: Jan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | uary                     | ·            |                                            | Keywords                                                          |
| Teaching Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ys                       | 25           |                                            | Variable and Data Types                                           |
| Periods Allot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | tted                     | 21           |                                            | <ul> <li>Operator</li> </ul>                                      |
| Periods Avai                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | lable                    |              | 1                                          | Input , output functions                                          |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Practicals/<br>Tutorials | Tests        |                                            | Conditional Statements     & Looping                              |
| 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 8                        |              |                                            |                                                                   |
| Month: Feb                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ruary                    |              | Unit – II: Control • Statements , String • | Break                                                             |
| Teaching Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ys                       | 24           |                                            | Continue                                                          |
| Periods Allot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | tted                     | 20           | Manipulation, Lists                        | • Pass                                                            |
| Periods Avai                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | lable                    |              |                                            | Accounty Chings                                                   |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Practicals/<br>Tutorials | Tests        |                                            | <ul><li>Basic Operations</li><li>String slices</li></ul>          |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 8                        |              |                                            |                                                                   |
| Month: Mar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ch                       |              |                                            | Function and Methods                                              |
| Teaching Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ys                       | 26           | 1                                          | Introduction                                                      |
| Periods Allot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | tted                     | 20           | 1                                          | <ul> <li>Accessing list</li> </ul>                                |
| Periods Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | 1            | <ul> <li>Operations</li> </ul>             |                                                                   |
| Teaching                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Practicals/<br>Tutorials | Tests        |                                            | <ul><li>Working with lists</li><li>Function and Methods</li></ul> |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 8                        |              |                                            |                                                                   |

Sign of the Teacher

IQAC CO-ORDINATOR



Fign of the Principal Principal

Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sano

Name : Ms. A. A. Patil

Subject : Physics

Class

: B.Sc. Part - II (Sem V)

Paper No: VIII

Paper Title

: Waves and Optics -II

|                  |                           |          | Topic /Unit                               | Sub-units Planned                                                                                                                         |
|------------------|---------------------------|----------|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Month: April     |                           | Unit III | Cardinal points of an                     |                                                                                                                                           |
| Teaching Days    |                           | 17       | 1. Cardinal points                        | optical system (definitions                                                                                                               |
| Periods Allotted |                           | 5        |                                           | only), graphical construction of image                                                                                                    |
| Periods Avai     | lable                     |          |                                           | using cardinal points,                                                                                                                    |
|                  |                           |          |                                           | Newton's formula, relation                                                                                                                |
| Teaching         | Practical's/<br>Tutorials | Tests    |                                           | between f and f' for any optical system,                                                                                                  |
|                  |                           |          |                                           | 8                                                                                                                                         |
| 5                |                           |          |                                           |                                                                                                                                           |
| Month: May       | 7                         |          | 1. Cardinal points                        | Relation between lateral,                                                                                                                 |
| Teaching Da      | ys                        | 25       | 2. Resolving Power of optical instruments | axial and angular<br>magnifications. Resolution<br>Resolving power of optical<br>instruments, Rayleigh's                                  |
| Periods Allo     | tted                      | 5        |                                           |                                                                                                                                           |
| Periods Avai     | lable                     |          |                                           |                                                                                                                                           |
| Teaching         | Practical's/<br>Tutorials | Tests    |                                           | criterion for the limit of<br>resolution, Modified<br>Rayleigh's criterion,<br>comparison between<br>magnification and<br>resolution,     |
| 5                |                           |          |                                           |                                                                                                                                           |
| Month: Jun       | e                         |          |                                           | resolving power of plane                                                                                                                  |
| Teaching Da      | ys                        | 26       | 2. Resolving Power of                     | diffraction grating,                                                                                                                      |
| Periods Allo     | tted                      | 5        | optical instruments                       | resolving power of a prism                                                                                                                |
| Periods Avai     | lable                     | •        | 3. Polarization of light                  | Idea of polarization,                                                                                                                     |
| Teaching         | Practical's/<br>Tutorials | Tests    | COLLEGE                                   | polarization by double refraction, Huygens explanation ofdouble refraction through uniaxial crystals, Nicol prism(construction, working), |
| 5 . 0            |                           |          | > SEM &                                   |                                                                                                                                           |

PAC CO-ORDINATOR

Principal

Yashwantrao Chavan Mahayidualaya

| Month: July                     |  |       | 3. Polarization of light | production and                                           |
|---------------------------------|--|-------|--------------------------|----------------------------------------------------------|
| Teaching Days Periods Allotted  |  | 26    |                          | detection of circularly and                              |
|                                 |  | 3     |                          | elliptically polarized light, optical rotation - laws of |
| Periods Available               |  |       | rotation of              |                                                          |
| Teaching Practical's/ Tutorials |  | Tests |                          | plane of polarization, polarimeter.                      |
| 3                               |  |       |                          |                                                          |

Sign of the Head

Sign of the Principal

Principal

Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang

OAC CO-ORDINATOR

COLLEGIO COL

Name

: Ms. A. A. Patil

Subject : Physics

Class

: B.Sc. Part - III (Sem V)

Paper No: X

Paper Title

: Quantum Mechanics

|                   | au au                               |                  | Topic /Unit                                                     | Sub-units Planned                                                                                                                                                             |
|-------------------|-------------------------------------|------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: N          |                                     |                  | Unit-I                                                          | Wave particle duality, De-                                                                                                                                                    |
|                   | Teaching Days 17 Periods Allotted 9 |                  | 1. Matter Waves                                                 | Broglie hypothesis of                                                                                                                                                         |
|                   |                                     | 9                |                                                                 | matter waves, Derivation                                                                                                                                                      |
| Periods Available |                                     | 1 Condingles : 1 | of wavelength of                                                |                                                                                                                                                                               |
| Teaching 5        | Practical's / Tutorials             | Tests            | 1. Cardinal points by Newton's method .                         | matter wave, Concept of<br>wave packet, Relation<br>between group velocity -<br>phase velocity and<br>group velocity-particle<br>velocity, Davisson and<br>Germer experiment, |
| Month: De         |                                     |                  | -                                                               |                                                                                                                                                                               |
|                   |                                     | 124              | 1. Matter Waves                                                 | Uncertainty principle                                                                                                                                                         |
| Teaching D        |                                     | 26               |                                                                 | (statements only):                                                                                                                                                            |
| Periods Allotted  |                                     | 9                |                                                                 | position-momentum and energy-time, Application                                                                                                                                |
| renous Ava        | Periods Available                   |                  |                                                                 |                                                                                                                                                                               |
| Teaching          | Practical's/<br>Tutorials           | Tests            | 2. Schrodinger's Wave Equation  2. Diffraction at a Single Slit | of uncertainty principlenor existence of free electrons in the nucleus.  Wave function and its physical interpretation, Condition of physically acceptable wave function,     |
| Month: Jan        | , TA.                               |                  | 2 Caban III 1 101                                               |                                                                                                                                                                               |
| Feaching Da       |                                     | 24               | 2. Schrodinger's Wave<br>Equation                               | Normalized and orthogonal                                                                                                                                                     |
| Periods Allo      |                                     | 9                | Equation                                                        | wave function, Schrödinger                                                                                                                                                    |
| Periods Ava       |                                     | 2                |                                                                 | time dependent and time                                                                                                                                                       |
| Teaching          | Practical's/<br>Tutorials           | Tests            | 3.Diffraction at cylindrical obstacle                           | independent (steady state) wave equations in 1D and 3D, Probability current density(continuity equation),                                                                     |
|                   | 4                                   |                  |                                                                 |                                                                                                                                                                               |

| Month: Fo         |                           |        | 2. Schrodinger's Wave                                  | Deck at the                                                                                                                                                                                                                                          |
|-------------------|---------------------------|--------|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Teaching I        |                           | 24     | Equation                                               | J Controlle                                                                                                                                                                                                                                          |
| Periods All       | lotted                    | 10     | 14                                                     | density(continuity equation), Eigen values and                                                                                                                                                                                                       |
| Periods Available |                           | 200.78 |                                                        | Eigen functions,                                                                                                                                                                                                                                     |
| Teaching          | Practical's/              |        | Unit-II 1. Operators in Quantum Mechanics              | Expectation values of dynamic variables.                                                                                                                                                                                                             |
|                   | Tutorials                 | Tests  | 4. Lloyd's single mirror                               | Definition of an operator, Position operator (x), Linear momentum operator (p), Commutation relation in quantum mechanics,                                                                                                                           |
| 6                 | 4                         |        |                                                        | meenames,                                                                                                                                                                                                                                            |
| Month: Ma         |                           |        | 1. Operators in                                        | Communication                                                                                                                                                                                                                                        |
| Teaching Da       |                           | 25     | Quantum Mechanics                                      | Commutation relation                                                                                                                                                                                                                                 |
| Periods Allo      | otted                     | 14     |                                                        | between x and p, Kinetic energy                                                                                                                                                                                                                      |
| Periods Ava       | ilable                    |        |                                                        | operator (T), Hamiltonian                                                                                                                                                                                                                            |
| Teaching          | Practical's/<br>Tutorials | Tests  | 5.Diameter of Lycopodium powder 6.Spherical aberration | operator (1), Parity operator (π), Angular momentum operator (L) – components of angular momentum operator in Cartesian coordinate system, Ladder operators, Eigen values of Lz and L2 (use equations for L2 and Lz in spherical polar coordinates). |
|                   |                           |        |                                                        |                                                                                                                                                                                                                                                      |

Sign of the Head

TV38

Sign of the Principal

Principal

Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang

IQAC CO-ORDINATOR
Y. C. COLLEGE, ISLAMPUR

Teachers Name :Sali Neha Nitin

Subject : Mathematics XIII

Class : B. Sc. Part III (Sem VI)

Paper Title: Metric Spaces

| 1000                |                          |       | Topic /Unit                                                                   | Sub-units Planned                                      |  |
|---------------------|--------------------------|-------|-------------------------------------------------------------------------------|--------------------------------------------------------|--|
| Month: Ap           | oril                     |       | Unit -1 Limits and                                                            | Limit of a function on the real line,                  |  |
| Teaching Da         | ays                      | 17    | Continuous Functions                                                          | Metric Spaces, Limits in Metric Spaces                 |  |
| Periods Allotted    |                          | 11    | on Metric Spaces - CCPM-V                                                     | Functions continuous at a point on the real line       |  |
| Periods Ava         | ilable                   | 111   | Experiment No. 7                                                              | real line                                              |  |
| Teaching            | Practicals/<br>Tutorials | Tests |                                                                               |                                                        |  |
| 7                   | 4                        |       |                                                                               | 3                                                      |  |
| Month: Ma           | ıy                       |       | CCPM- V                                                                       | Reformulation, Functions continuous                    |  |
| Teaching D          | ays                      | 25    | Experiment No. 8                                                              | on a metric space, Open Sets, Closed                   |  |
| Periods Allotted 16 |                          | 16    |                                                                               | Sets, More about open sets.                            |  |
| Periods Available   |                          |       |                                                                               |                                                        |  |
| Teaching            | Practicals/<br>Tutorials | Tests |                                                                               |                                                        |  |
| 12                  | 4                        |       |                                                                               |                                                        |  |
| Month: Ju           | ne                       |       | Unit 2: Connectedness, Completeness and Compactness CCPM- V Experimentl No. 9 | Connected Sets, Bounded sets and totally bounded sets, |  |
| Teaching D          | ays                      | 26    |                                                                               |                                                        |  |
| Periods All         | otted                    | 20    |                                                                               |                                                        |  |
| Periods Av          | ailable                  |       |                                                                               |                                                        |  |
| Teaching            | Practicals/<br>Tutorials | Tests | CCPM-VI<br>Experiment No. 9                                                   |                                                        |  |
| 12                  | 8                        |       |                                                                               | 54                                                     |  |
| Month: Ju           | ly                       |       | CCPM- VI                                                                      | Complete metric spaces, Compact                        |  |
| Teaching D          | ays                      | 26    | Experiment No. 10                                                             | metric spaces, Continuous functions or                 |  |
| Periods Allotted 16 |                          |       | compact metric spaces                                                         |                                                        |  |
| Periods Available   |                          |       |                                                                               |                                                        |  |
| Teaching            | Practicals/<br>Tutorials | Tests |                                                                               |                                                        |  |
| 12                  | 4                        |       |                                                                               |                                                        |  |

Sign of the Teacher

Sign of the Principal

CO-ORDINATOR LLEGE, ISLAMPUR



Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang.

2020-21

Subject: Chemistry

Class: B.Sc. Part - III (Sem - VI)

Paper No: XV

Paper Title: Physical Chemistry

|                    |                          |           | Topic /Unit                                  | Sub-units Planned                                                     |  |
|--------------------|--------------------------|-----------|----------------------------------------------|-----------------------------------------------------------------------|--|
| Month: Ap          | ril                      |           | Thermodynamics                               | • Knowledge about basic concepts of                                   |  |
| Teaching Days 20   |                          |           | thermodynamics, free energy, Gibbs-          |                                                                       |  |
| Periods Allotted 6 |                          | 6         |                                              | Helmholtz equation and its                                            |  |
| Periods Available  |                          |           | applications, problem related with it        |                                                                       |  |
| Teaching           | Practicals/<br>Tutorials | Tests     |                                              |                                                                       |  |
| 6                  |                          | 1         |                                              |                                                                       |  |
| Month: Ma          | ay                       |           | Phase equilibria                             | • Learning and understanding of phase                                 |  |
| Teaching D         | ays                      | 22        |                                              | rule, learning of one component, two                                  |  |
| Periods All        | otted                    | 8         |                                              | components and three component                                        |  |
| Periods Av         | ailable                  |           |                                              | systems, Phase diagrams with suitable                                 |  |
| Teaching           | Practicals/<br>Tutorials | Tests     |                                              | examples                                                              |  |
| 8                  |                          | 1         |                                              |                                                                       |  |
| Month: Ju          | ne                       |           | Solid state                                  | • Learning and understanding space                                    |  |
| Teaching Days 22   |                          | chemistry | lattice, lattice sites, lattice planes, unit |                                                                       |  |
| Periods Allotted 8 |                          |           |                                              |                                                                       |  |
| Periods Av         | Periods Available        |           |                                              | • Laws of crystallography, Weiss indice                               |  |
| Teaching           | Practicals/<br>Tutorials | Tests     |                                              | and Miller indices, cubic lattice and<br>types of cubic lattice       |  |
| 7                  |                          |           |                                              |                                                                       |  |
| Month: Ju          | ıly                      | 1         | Solid state                                  | • Diffraction of X-rays, derivation of                                |  |
| Teaching I         | Days                     | 22        | chemistry                                    | Bragg's equation  • Determination of crystal structure by             |  |
| Periods Al         | lotted                   | 6         |                                              |                                                                       |  |
| Periods Av         | ailable                  |           |                                              | Bragg's method                                                        |  |
| Teaching           | Practicals/<br>Tutorials | Tests     |                                              | Crystal structure of NaCl and KCl on<br>the basis of Bragg's equation |  |
| 5                  |                          | 1         |                                              |                                                                       |  |
| Month: A           | ugust                    |           | Chemical kinetics                            | • Learning of kinetics, simultaneous                                  |  |
| Teaching I         | 19 <del>78</del> 1-117   | 15        |                                              | reactions such as 1) Opposing reaction                                |  |
| Periods Allotted   |                          | 5         |                                              | 2) Side reaction 3) Consecutive reaction                              |  |
| Periods Av         | ailable                  |           |                                              | 4) Chain reaction 5) Explosive reaction                               |  |
| Teaching           | Practicals/<br>Tutorials | Tests     |                                              |                                                                       |  |
| 5                  |                          | 1         |                                              |                                                                       |  |

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Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang

Teachers Name :Jadhav Megharani Chandrakant

Subject : Mathematics XIV

Class : B. Sc. Part III (Sem VI)

Paper Title : Linear Algebra

|               |                          |                           | Topic /Unit                   | Sub-units Planned                                                                                                                                                                                                                                                      |
|---------------|--------------------------|---------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| April: April  |                          | Unit 1: Vector Spaces and | Vector space: Subspace, Sum o |                                                                                                                                                                                                                                                                        |
| Teaching Days |                          | 17                        | Linear Transformations        | subspaces, direct sum,                                                                                                                                                                                                                                                 |
| Periods Allot | ted                      | 11                        | CCPM-IV                       | Quotient space,                                                                                                                                                                                                                                                        |
| Periods Avai  | lable                    |                           | Experiment No.7               | Homomorphism or Linear                                                                                                                                                                                                                                                 |
| Teaching      | Practicals/<br>Tutorials | Tests                     |                               | transformation, Kernel and Range of homomorphism, Fundamental Theorem of homomorphism, Isomorphism theorems, Linear Span, Finite dimensional vector space, Linear dependence and independence, basis, dimension of vector space and subspaces.                         |
| 7             | 4                        |                           |                               |                                                                                                                                                                                                                                                                        |
| Month: May    | 7                        |                           | CCPM-IV                       | Linear Transformation: Rank                                                                                                                                                                                                                                            |
| Teaching Days |                          | 25                        | Experiment No.9               | and nullity of a linear                                                                                                                                                                                                                                                |
| Periods Allot | tted                     | 20                        | CCPM-VI Experiment No.8       | transformation, Sylvester's                                                                                                                                                                                                                                            |
| Periods Avai  | lable                    |                           | Experiment No.8               | Law, Algebra of Linear<br>Transformations , Sum and                                                                                                                                                                                                                    |
| Teaching      | Practicals/<br>Tutorials | Tests                     | *                             | scalar multiple of Linear Transformations. The vector space of Homomorphisms, Product (composition) of Line Transformations, Linear operator, Linear functional, Invertible and non-singular Linear Transformation, Matrix of Linear Transformations and its examples. |
| 12            | 8                        |                           |                               |                                                                                                                                                                                                                                                                        |
|               |                          |                           |                               |                                                                                                                                                                                                                                                                        |

| Month: Jun        | e                        |       | Unit 2: Inner Product                                       | Eigen values and Eigen vectors:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------|--------------------------|-------|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Teaching Days     |                          | 26    | Spaces, Eigen values and Eigen vectors                      | Eigen space, Characteristic Polynomial of a matrix and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Periods Allo      | tted                     | 16    | CCPM- IV                                                    | remarks on it,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Periods Avai      | lable                    |       | Experiment No. 11                                           | electric transporter and consentrative.  ■ The consentrative of the con |
| Teaching          | Practicals/<br>Tutorials | Tests |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 12                | 4                        |       |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Month: July       | 7                        |       | CCPM- VI<br>Experiment No. 11                               | similar matrices, Characteristic<br>Polynomial of a Linear<br>operator, Examples and real life                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Teaching Da       | ys                       | 26    |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Periods Allo      | tted                     | 16    |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Periods Available |                          |       | (Predatory – Prey problem),<br>examples on eigen values and |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Teaching          | Practicals/<br>Tutorials | Tests |                                                             | eigen vectors.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 12                | 4                        |       |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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Yashwantrao Chavan Mahavidyalaya

IQAC CO-ORDINATOR
Y. C. COLLEGE, ISLAMPUR



#### YASHWANTRAO CHAVAN MAHAVIDYALAYA, ISLAMPUR

#### **ANNUAL TEACHING PLAN** 2020-2021

Teachers Name :Sali Neha Nitin

Subject : Mathematics XV

Class : B. Sc. Part III (Sem VI)

Paper Title: Complex Analysis

|                     |                          |          | Topic /Unit                            | Sub-units Planned                                                                                                                      |
|---------------------|--------------------------|----------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Month: Ap           | oril                     |          | Unit 1 :Analytic functions and Complex | Basic algebraic and geometric                                                                                                          |
| Teaching Da         | ays                      | 17       |                                        | properties of complex numbers,                                                                                                         |
| Periods Allo        | otted                    | 11       | Integration                            | Function of complex variable, Limits,                                                                                                  |
| Periods Ava         | ilable                   |          | CCPM- VI                               | continuity and differentiation, Cauchy                                                                                                 |
| Teaching            | Practicals/Tut<br>orials | Tests    | Experimentl No.7                       | Riemann equations, Analytic functions and examples of analytic functions                                                               |
| 7                   | 4                        |          |                                        |                                                                                                                                        |
| Month: Ma           | ıy                       |          | CCPM- V                                | Exponential function, Logarithmic                                                                                                      |
| Teaching D          | ays                      | 25       | Experiment No.10                       | function, Trigonometric function,                                                                                                      |
| Periods Allo        | otted                    | 16       |                                        | Definite integrals of functions,                                                                                                       |
| Periods Available   |                          |          | Contours, Contour integrals and its    |                                                                                                                                        |
| Teaching            | Practicals/<br>Tutorials | Tests    |                                        | examples, upper bounds for moduli of contour integral                                                                                  |
| 12                  | 4                        |          |                                        |                                                                                                                                        |
| Month: Jui          | ne                       |          | CCPM- V                                | Cauchy-Goursat theorem and examples, Cauchy integral formula and examples, Liouville's theorem and the fundamental theorem of algebra. |
| Teaching D          | ays                      | 26       | Experiment No.11                       |                                                                                                                                        |
| Periods Alle        | otted                    | 16       |                                        |                                                                                                                                        |
| Periods Ava         | ailable                  |          |                                        |                                                                                                                                        |
| Teaching            | Practicals/<br>Tutorials | Tests    |                                        |                                                                                                                                        |
| 12                  | 4                        |          |                                        |                                                                                                                                        |
| Month: Ju           | ly ·                     |          | Unit 2 : Sequences,                    | Convergence of sequences and series                                                                                                    |
| Teaching D          | ays                      | 26       | Series and Residue                     | of complex variables, Taylor series and                                                                                                |
| Periods Allotted 16 |                          | Calculus | its examples, Laurent series and its   |                                                                                                                                        |
| Periods Available   |                          | CCPM- V  | examples, absolute and uniform         |                                                                                                                                        |
| Teaching            | Practicals/<br>Tutorials | Tests    | Experiment No.12                       | convergence of power series, Isolated singular points                                                                                  |
| 12                  | 4                        |          |                                        |                                                                                                                                        |

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C. COLLEGE, ISLAMPUR

Vachwantrao Chavan Mahavidyalaya

URISH AS LAMPUR, (Dist. Sang

Teachers Name: Jadhav Megharani Chandrakant

Subject : Mathematics XVI

Class : B. Sc. Part III (Sem V)

Paper Title: Discrete Mathematics

|                                |                          | A-10-10-10-10-10-10-10-10-10-10-10-10-10- | Topic /Unit                        | Sub-units Planned                                                                                                           |
|--------------------------------|--------------------------|-------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Month: Ap                      | ril                      |                                           | Unit 1 : Mathematical              | The logic of compound statements:                                                                                           |
| Teaching Days Periods Allotted |                          | 17                                        | Logic                              | Statements, compound statements,                                                                                            |
|                                |                          | 10                                        | CCPM- IV                           | truth values, logical equivalence,                                                                                          |
| Periods Ava                    | ilable                   |                                           | Experiment No.8                    | tautologies and contradictions,                                                                                             |
| Teaching                       | Practicals/<br>Tutorials | Tests                                     |                                    | Conditional statements                                                                                                      |
| 6                              | 4                        |                                           |                                    |                                                                                                                             |
| Month: Ma                      | y                        |                                           | 65                                 | The contrapositive of a conditional                                                                                         |
| Teaching Da                    | ıys                      | 25                                        | CCPM- IV                           | statements, converse, inverse of a                                                                                          |
| Periods Allo                   | tted                     | 16                                        | Practical No. 10                   | conditional statements, biconditional                                                                                       |
| Periods Available              |                          |                                           | statements. Valid and invalid.     |                                                                                                                             |
| Teaching                       | Practicals/<br>Tutorials | Tests                                     |                                    | arguments: Modus Ponens and modu:<br>Tollen                                                                                 |
| 12                             | 4                        |                                           |                                    |                                                                                                                             |
| Month: Jun                     | e                        |                                           | CCPM-IV<br>ExperimentNo.12         | Number system: Addition and subtraction of Binary, decimal, quinta octal, hexadecimal number systems and their conversions. |
| Teaching Da                    | iys                      | 26                                        |                                    |                                                                                                                             |
| Periods Allo                   | tted                     | 16                                        |                                    |                                                                                                                             |
| Periods Avai                   | ilable                   |                                           |                                    |                                                                                                                             |
| Teaching                       | Practicals/<br>Tutorials | Tests                                     |                                    |                                                                                                                             |
| 12                             | 4                        |                                           |                                    |                                                                                                                             |
| Month: July                    | Y                        |                                           | Unit 2:Graphs and trees            | Graphs :Definitions, basic                                                                                                  |
| Teaching Da                    | iys                      | 26                                        | CCPM- VI                           | properties, examples, types of graphs,                                                                                      |
| Periods Allo                   | tted                     | 16                                        | Experimentl No. 12                 | concept of degree, Trails, Paths and                                                                                        |
| Periods Available              |                          | -                                         | Circuits, Matrix representation of |                                                                                                                             |
| Teaching                       | Practicals/<br>Tutorials | Tests                                     |                                    | graphs,Isomorphism of graphs                                                                                                |
| 12                             | 4                        |                                           |                                    |                                                                                                                             |

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MAC CO-ORDINATOR

Y. C. COLLEGE

Sign of the Principal

Principal
Yashwantrao Chavan Mahavidyalaya
URUN-ISLAMPUR, (Dist. Sang

Subject : Chemistry

Class : B.Sc Part - III ( Sem - VI)

Paper No :XVI

Paper Title: Industrial Chemistry

|                   |                          |        | Topic /Unit                    | Sub-units Planned                                                                                                                                                                                                              |  |
|-------------------|--------------------------|--------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Month: April      |                          |        | Synthetic Polymers             | Introduction. Classification-                                                                                                                                                                                                  |  |
| Feaching Day      |                          | 20     |                                | 1) Based on origin 2) Based on composition 3) Based on                                                                                                                                                                         |  |
| Periods Allotted  |                          | 12     |                                | method of preparation 4)                                                                                                                                                                                                       |  |
| Periods Available |                          |        |                                | Based on physical                                                                                                                                                                                                              |  |
| Teaching          | Practicals/<br>Tutorials | Tests  |                                | properties 5) Bsaed of structure. Addition polymerization, Ziegle Natta polymerization Preparation of polymerication of polymers Synthesis and properties Polyaniline, Polypyrol. Applications of conducting organic polymers. |  |
|                   | 2                        |        | Physical Chemistry             | Potentiometry I,II                                                                                                                                                                                                             |  |
| Month: May        |                          |        | f Hoper                        | Introduction 1) Manufacture of<br>Ammonia( NH <sub>3</sub> )                                                                                                                                                                   |  |
| Teaching Days     |                          | 22     | Manufacture of Heavy Chemicals | 2)Manufacture or Sulphuric acid (H <sub>2</sub> SO <sub>4</sub> )                                                                                                                                                              |  |
| Periods Allot     | Periods Allotted         |        |                                |                                                                                                                                                                                                                                |  |
| Periods Avai      | lable                    | 1      |                                | 3)Manufacture of Nitric acid<br>(HNO3)<br>4) Manufacture of Sodium<br>Carbonate(Na2CO3)                                                                                                                                        |  |
| Teaching          | Practicals/<br>Tutorials | Tests  |                                |                                                                                                                                                                                                                                |  |
|                   | 4                        | 1      | Physical Chemistry             | Potentiometry<br>III,Colorimetry,Refractometer,, Conductometer I.                                                                                                                                                              |  |
| Month: Jun        | e                        |        | Sugar Industry                 | Introduction. Manufacture                                                                                                                                                                                                      |  |
| Teaching Da       | ıys                      | 22     |                                | Introduction. Manufacture of sugar in India                                                                                                                                                                                    |  |
| Periods Allo      | otted                    | 12     |                                | Byproducts of suga                                                                                                                                                                                                             |  |
| Periods Ava       | ilable                   |        |                                | industry. Manufacture of                                                                                                                                                                                                       |  |
| Teaching          | Practicals/<br>Tutorials | Tests  |                                | Ethyl alcohol from Molasses : by fermentation                                                                                                                                                                                  |  |
|                   | 2                        |        | Physical Chemistry             | Conductometery 1<br>pHmetry                                                                                                                                                                                                    |  |
| Month: Jul        | ly                       | _      | Nanotechnology                 | Introduction, History, Class                                                                                                                                                                                                   |  |
| Teaching D        |                          | 22     |                                | ication. Optical propertie                                                                                                                                                                                                     |  |
| Periods All       | 2007/200                 | 12     | _                              | of nanomaterials. Synthet                                                                                                                                                                                                      |  |
| Periods Av        | ailable                  |        | _                              | route<br>nanomaterials.Synthesis                                                                                                                                                                                               |  |
| Teaching          | Practicals<br>Tutorials  | 16.515 |                                | methods. Characterization                                                                                                                                                                                                      |  |

|              |                          |       | Applications of nanotechnology |
|--------------|--------------------------|-------|--------------------------------|
|              |                          | 1     |                                |
| Teaching Da  | ys                       | 15    |                                |
| Periods Allo | tted                     | 13    |                                |
| Periods Avai | ilable                   |       |                                |
| Teaching     | Practicals/<br>Tutorials | Tests |                                |
|              |                          | 1     |                                |

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OAC CO-ORDINATOR

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Principal
Yashwantrao Chavan Mahavidyalava
URUN-ISLAMPUR, (Dist. Sang

Subject: Physics

Class: B.Sc Part - III (SEM - VI)

Paper No: XIV

Paper Title: SOLID STATE PHYSICS

|                   |                          |       | Topic /Unit                                                                                                                             | Sub-units Planned                                                                                                                                |
|-------------------|--------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: April      |                          |       | Unit-I                                                                                                                                  | Solids: amorphous, polycrystalline and                                                                                                           |
| Teaching Day      | s                        | 17    | 1. Crystal Structure                                                                                                                    |                                                                                                                                                  |
| Periods Allotte   | Periods Allotted         |       |                                                                                                                                         | crystalline materials; lattice,                                                                                                                  |
| Periods Availa    | able                     | y     | I. To work the touth tobles of                                                                                                          | basis, unit cell- primitive,<br>non-primitive unit cell,                                                                                         |
| Teaching          | Practicals/<br>Tutorials | Tests | 1. To verify the truth tables of NAND, NOR, Ex-OR and Ex-NOR gates by using basic gates with IC-74 series.                              | non-primitive unit cell,<br>symmetry operations,<br>symmetry elements of cube,<br>Bravais lattice in<br>two and three dimensions,                |
| 6                 | 4                        |       |                                                                                                                                         |                                                                                                                                                  |
| Month: May        |                          |       | 1. Crystal Structure                                                                                                                    | Miller indices, Miller indices                                                                                                                   |
| Teaching Day      | s                        | 25    |                                                                                                                                         | and inter-planer spacing,                                                                                                                        |
| Periods Allott    | ed                       | 19    |                                                                                                                                         | Simple crystal structures:                                                                                                                       |
| Periods Avail     | able                     | 1     |                                                                                                                                         | SC, BCC, FCC and HCP(Co-<br>ordination number, atomic                                                                                            |
| Teaching          | Practicals/<br>Tutorials | Tests | 2. X-Ray Diffraction  2. To verify the De-Morgan's theorems by using IC-74 series.  3. To built and test Colpitts oscillator using BJT. | Reciprocal lattice and its properties, Brillouin zone, Diffraction of X-rays by crystals, Ewald construction, Bragg's law in reciprocal lattice, |
| 11                | 8                        | 1     |                                                                                                                                         | P ' I d l ' V                                                                                                                                    |
| Month: June       |                          |       | 2. X-Ray Diffraction                                                                                                                    | Experimental methods in X-<br>ray diffraction                                                                                                    |
| Teaching Day      |                          | 26    |                                                                                                                                         | (Laue method, rotating                                                                                                                           |
| Periods Allot     | 0.1.00.00                | 18    |                                                                                                                                         | crystal method, powder                                                                                                                           |
| Periods Available |                          |       | photograph                                                                                                                              |                                                                                                                                                  |
| Teaching          | Practicals/<br>Tutorials | Tests | Unit II  1. Magnetic Properties of Matter  4. To built and test phase shift oscillator using BJT                                        | method), Analysis of cubic crystal by powder method.  Classical Langevin theory o diamagnetic and paramagnetic materials,                        |

|                  |                          |                           | 5. To studyOp-amp as an inverting amplifier.                       |                                                                |
|------------------|--------------------------|---------------------------|--------------------------------------------------------------------|----------------------------------------------------------------|
| 10               | 8                        |                           |                                                                    |                                                                |
| Month: July      |                          | 1. Magnetic Properties of | Quantum mechanical                                                 |                                                                |
| Teaching Days    |                          | 26                        | Matter                                                             | treatment of paramagnetism,<br>Curie's law, Weiss theory of    |
| Periods Allotted |                          | 13                        |                                                                    |                                                                |
| Periods Avail    | lable                    |                           |                                                                    | ferromagnetism and<br>ferromagnetic                            |
| Teaching         | Practicals/<br>Tutorials | Tests                     | 6. To design and test an astable multivibrator using IC-555 Timer. | domains, Explanation of B-H curve, Hysteresis and energy loss. |
| 9                | 4                        |                           |                                                                    |                                                                |

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Principal
Yashwantrao Chavan Mahavidyalaya
URUN-ISLAMPUR, (Dist. Sang

Teachers Name: Miss. N. S. Atugade

Subject: Physics

Class: B.Sc Part -III (Sem-VI)

Paper No: XIII

Paper Title: Nuclear and Particle Physics

|               |                          |              | Topic /Unit                                            | Sub-units Planned                                       |
|---------------|--------------------------|--------------|--------------------------------------------------------|---------------------------------------------------------|
| Month: Apr    | il                       |              | Unit -I                                                | Introduction, constitution of                           |
| Teaching Days |                          | 17           | 1.General property of                                  | the nucleus and their                                   |
| Periods Allot | ted                      | 5            | nuclei                                                 | intresic property,basic                                 |
| Periods Avai  | lable                    |              |                                                        | property of nuclei, liquid<br>drop model,semi empirical |
| Teaching      | Practicals/<br>Tutorials | Tests        | Practical- 1 Estimation of errors.                     | formula,magic no.                                       |
| 5             | 4                        |              |                                                        |                                                         |
| Month: May    | 7                        |              |                                                        | Introduction, need of                                   |
| Teaching Da   | ys                       | 25           | Topic-2-                                               | accelerator, cyclotron,                                 |
| Periods Allo  | tted                     | 18           | Partical Accelerator                                   | Synchrocyclotron,                                       |
| Periods Avai  | lable                    | <del>.</del> |                                                        | Betatron, synchrotons.                                  |
| Teaching      | Practicals/<br>Tutorials | Tests        | Practical- 2.RC phase shift oscillator 3.Kelvin method |                                                         |
| 7             | 8                        |              |                                                        |                                                         |
| Month: june   | 2                        |              | Unit 2                                                 | Introduction, Ionisation                                |
| Teaching Da   | ys                       | 26           | 1.Nuclear detector                                     | Chamber,GM counter,PMT,<br>Scintillation                |
| Periods Allo  | tted                     | 11           |                                                        |                                                         |
| Periods Avai  | ilable                   |              | Practical-                                             | counter, Crenekov radiation,<br>Crenekov detector and   |
| Teaching      | Practicals/<br>Tutorials | Tests        | 4. Study of fiath and full                             | Crenekov detector and Counter.                          |
| 8             | 8                        |              |                                                        |                                                         |
| Month: july   |                          |              | 2. Nuclear Detector                                    | Wilson Cloud Chamber.                                   |
| Teaching Da   | iys                      | 26           |                                                        | Semiconductor detector.                                 |
| Periods Allo  | tted                     | 10           | Practical-                                             |                                                         |
| Periods Ava   | ilable                   |              | 6.Radious of bore of                                   |                                                         |
| Teaching      | Practicals/<br>Tutorials | Tests        | capillary tube                                         |                                                         |
| 2             | 8                        |              |                                                        |                                                         |

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Yashwantrao Chavan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang

**Principal** 

IQAC CO-ORDINATOR
Y. C. COLLEGE, ISLAMPUR

Teacher Name - Miss. N. S. Atugade

Class: B.Sc Part -III (Sem - VI)

Paper No: XV

Paper Title: Atomic and molecular physics and Astrophysics

|                                   |                          |                | Topic /Unit                                            | Sub-units Planned                                                                                                                            |
|-----------------------------------|--------------------------|----------------|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Month: Apr                        | il                       |                | Unit II -                                              | Raman effect, properties of<br>Raman lines, Classical and                                                                                    |
| Teaching Day                      |                          | 17             | Raman Spectra                                          |                                                                                                                                              |
| Periods Allot                     | ted                      | 6              |                                                        | quantum theory of Raman                                                                                                                      |
| Periods Avai                      | lable                    |                |                                                        | effect, difference between Raman and infrared spectra.                                                                                       |
| Teaching                          | Practicals/<br>Tutorials | Tests          |                                                        | raman and infrared speedu.                                                                                                                   |
| 6                                 |                          |                |                                                        |                                                                                                                                              |
| Month: May                        | 1                        | Int a superior |                                                        | The Hubble law,Big bang                                                                                                                      |
| Teaching Da                       | ys                       | 25             |                                                        | theory, oscillating theory,                                                                                                                  |
| Periods Allo                      | tted                     | 8              | 2. Structure of universe                               | steady state theory, cosmological testes, Milky way                                                                                          |
| Periods Avai                      | lable                    |                |                                                        | galaxy, origin of solar system.                                                                                                              |
| Teaching                          | Practicals/<br>Tutorials | Tests          |                                                        |                                                                                                                                              |
| 8                                 | 8                        |                |                                                        |                                                                                                                                              |
| Month: Jun                        | e                        |                | Unit I- Atomic Spectra                                 | Hydrogen fine structure, optical spectral series for doublet spectrum of sodium, intensity rules electron spin orbit interaction, normal and |
| Teaching Da                       | ys                       | 26             |                                                        |                                                                                                                                              |
| Periods Allo                      | tted                     | 7              |                                                        |                                                                                                                                              |
| Periods Avai                      | lable                    | de il ili      |                                                        |                                                                                                                                              |
| Teaching Practicals/<br>Tutorials |                          | Tests          |                                                        | Anomalous Zeema effect, Lande g factor.                                                                                                      |
| 7                                 | 8                        |                |                                                        |                                                                                                                                              |
| Month: July                       | 7                        | -              |                                                        | Molecular bond, electron                                                                                                                     |
| Teaching Da                       | iys                      | 26             | 2. Molecular Spectra                                   | sharing,H2 molecul ion.                                                                                                                      |
| Periods Allotted                  |                          | 10             |                                                        | rotational Spectra, rotationa                                                                                                                |
| Periods Available                 |                          |                | energy levels, vibrational spectra, vibrational energy |                                                                                                                                              |
| Teaching                          | Practicals/<br>Tutorials | Tests          |                                                        | levels.                                                                                                                                      |
| 10                                |                          |                |                                                        |                                                                                                                                              |

Sign of the Teacher

Sign of the Head

Sign of the Principal

QAC CO-ORDINATOR



Principal
Yashwantrao Chavan Mahavidyalara
URUN-ISLAMPUR, (Dist. Sany

Subject: Chemistry

Class: B.Sc.Part - III (Sem - VI)

Paper No:XIV

Paper Title: Organic Chemistry

|                  |                         |        | Topic /Unit                                                                                         | Sub-units Planned                                                                                                                                                                                   |
|------------------|-------------------------|--------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: April     |                         | Theory | Preparation and Applications                                                                        |                                                                                                                                                                                                     |
| Teaching D       | ays                     | 17     | Unit I                                                                                              | of following reagents.                                                                                                                                                                              |
| Periods Allotted |                         | 16     | Reagents and Reactions in                                                                           | Lithium aluminum hydride<br>LiAlH4, Raney Nickel                                                                                                                                                    |
| Periods Ava      | ailable                 |        | Organic Synthesis A] Reagents                                                                       | LiAlH4, Raney Nickel<br>Osmium tetroxide, Selenium                                                                                                                                                  |
| Teaching         | practical/<br>Tutorials | Tests  | B] Reactions  Practical: 1.binary mixture-1                                                         | dioxide (SeO2),Cyclohexy Carbodiimide (DCC)  Diels -Alder reaction,Merwir  -Pond Orff-Verley reduction,Hofmann rearrangement,Wittig reaction,Wagner- Merwir rearrangement,Baeyer Villige oxidation. |
|                  |                         |        | 2. 2:4-DNP derivative                                                                               | Oxidation.                                                                                                                                                                                          |
| 8                | 8                       |        |                                                                                                     |                                                                                                                                                                                                     |
| Month: Ma        |                         |        | Theory                                                                                              | Addition to Carbon-Carbon                                                                                                                                                                           |
| Teaching D       | -                       | 25     | Unit II                                                                                             | double (>C=C<) bond:<br>Anti-Markovnikoff's addition                                                                                                                                                |
| Periods All      | otted                   | 18     | Electrophonic addition to<br>>C=C< and -C=C- bonds                                                  | (peroxide effect), Addition of                                                                                                                                                                      |
| Periods Av       | ailable                 |        | - C-C and C-C bonds                                                                                 | hypohalous acids (HO                                                                                                                                                                                |
|                  |                         |        |                                                                                                     | X),Ozonolysis (formation of aldehydes & ketones),Hydroxylation (formation of 1,2-diols).                                                                                                            |
| Teaching         | practical/<br>Tutorials | Tests  | Addition to Carbon-Carbon triple (-C=C-) bond  Practical: 1, binary mixture-2 2. osazone derivative | Examples of addition reactions. Mechanism of electrophilic addition to —C=C—bond, Addition of halogens, Addition of halogens acids, Formation of metal acetylides.                                  |
| 10               | 8                       |        |                                                                                                     |                                                                                                                                                                                                     |
| Month: Jur       | ne                      |        | Theory                                                                                              | Introduction, Occurrence                                                                                                                                                                            |
| Teaching I       | Days                    | 26     | Unit IV                                                                                             | Isolation, General                                                                                                                                                                                  |
| Periods Al       | lotted                  | 22     | Natural Products                                                                                    | Characteristic, Classificatio                                                                                                                                                                       |

| Periods Available |                           |       | A] Terpenoids:                                                                  | General Methods for structure                                                                                                                                                                   |
|-------------------|---------------------------|-------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Teaching          | Practicals<br>/ Tutorials | Tests | Practical: 1.binary mixture-3 2. nitrate derivative 3.binary mixture-4          | determinations, Isoprene rule,<br>Analytical evidences and<br>synthesis of Citral                                                                                                               |
| 10                | 12                        |       |                                                                                 |                                                                                                                                                                                                 |
| Month: July       |                           |       | B] Alkaloids:                                                                   | Introduction, Occurrence,                                                                                                                                                                       |
| Teaching Days     |                           | 26    |                                                                                 | Isolation, Classification,                                                                                                                                                                      |
| Periods Allo      | tted                      | 18    |                                                                                 | Properties, General Methods<br>for structure determination<br>Analytical evidences and                                                                                                          |
| Periods Ava       | ilable                    |       |                                                                                 |                                                                                                                                                                                                 |
| Teaching          | Practicals<br>/ Tutorials | Tests | Theory Unit V Pharmaceuticals  Practical: 1,binary mixture-5 2,binary mixture-6 | synthesis of Nicotine.  Classification, Qualities o ideal drugs, Synthesis and uses of ethambutal phenobarbitone, isoniazide benzocaine, Chloramphenicol paludrine, Drug action o sulpha drugs. |
| 10                | 8                         |       |                                                                                 |                                                                                                                                                                                                 |

Sign of the Head

Sign of the Principal

IQAC CO-ORDINATOR
Y. C. COLLEGE, ISLAMPUI

C. COLLEGE URUM MOLES

Principal
Yashwantrao Chavan Mahavidyalaya
URUN-ISLAMPUR, (Dist. Sang

Teachers Name: Miss. P. V. Patil.

Subject: Chemistry Paper No: XIII : B.Sc Part-III (Sem - VI) Paper Title : Inorganic Chemistry

| per No: XIII        |                          |             | Paper Title : Inorganic Chemistry                                              |                                                                                                                                                                                                                                                              |  |
|---------------------|--------------------------|-------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                     |                          |             | Topic /Unit                                                                    | Sub-units Planned                                                                                                                                                                                                                                            |  |
| Month: Apr          | il                       |             | 1. Coordination Chemistry                                                      | Classification of                                                                                                                                                                                                                                            |  |
| Teaching Day        |                          | 15          | I - Inorganic Reaction                                                         | Mechanism, SNI and SN2                                                                                                                                                                                                                                       |  |
| Periods Allotted 14 |                          | 14          | mechanism                                                                      | reactions for inert and labile                                                                                                                                                                                                                               |  |
| Periods Avai        | lable                    |             |                                                                                | complexes,                                                                                                                                                                                                                                                   |  |
| Teaching            | Practicals/<br>Tutorials | Tests       |                                                                                |                                                                                                                                                                                                                                                              |  |
| Month: May          | /                        |             | 1 - Inorganic Reaction                                                         | Trans effect and its                                                                                                                                                                                                                                         |  |
| Teaching Da         |                          | 16          | mechanism                                                                      | theories, Applications of                                                                                                                                                                                                                                    |  |
| Periods Allot       |                          | 15          | 1                                                                              | trans effect in synthesis of                                                                                                                                                                                                                                 |  |
| Periods Avai        | lable                    |             | 1                                                                              | Pt (II) complexes                                                                                                                                                                                                                                            |  |
| Teaching            | Practicals/<br>Tutorials | Tests       | II - Thermodynamic and Kinetic aspects of metal complexes  Inorganic Chemistry | Kinetic Stability, Stepwise stability constant, Determination of Stability constant by Job variation, Mole ratio and Slope ratio method.  5. Preparation of potassium trioxalato ferrate (III).  6. Preparation of chloropenta-ammine cobalt (III) chloride. |  |
|                     | 2                        | 1           |                                                                                |                                                                                                                                                                                                                                                              |  |
| Month: Jun          |                          | To the same | 2. Nuclear Chemistry                                                           | Types of nuclear reactions,                                                                                                                                                                                                                                  |  |
| Teaching Da         |                          | 17          |                                                                                | Use of Thorium, Uranium                                                                                                                                                                                                                                      |  |
| Periods Allo        |                          |             |                                                                                | and Plutonium in atomic                                                                                                                                                                                                                                      |  |
| Periods Ava         | ilable                   |             |                                                                                | energy, Applications of                                                                                                                                                                                                                                      |  |
| Teaching            | Practicals/<br>Tutorials | Tests       | Inorganic Chemistry                                                            | radio-isotopes as tracers  Percentage Purity - 7. Determination of percentage purity of ferrou ammonium sulpahte.                                                                                                                                            |  |
|                     |                          |             |                                                                                | 8. Determination of percentage purity of tetrammine copper (II) sulphate.                                                                                                                                                                                    |  |

|                     | 2                        | 1     |                               |                                                                                                                                                                                                                                                     |
|---------------------|--------------------------|-------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     |                          | 1     |                               |                                                                                                                                                                                                                                                     |
| Month: July         |                          | 1     | 3. Chemistry of f- Block      |                                                                                                                                                                                                                                                     |
| Teaching Da         |                          | 16    | Elements                      | PI                                                                                                                                                                                                                                                  |
|                     |                          | 14    |                               | Electronic Configuration,                                                                                                                                                                                                                           |
|                     |                          |       | A ] Lanthanides  B] Actinides | Lantahnide contraction, Separation of Lanthanides by Ion exchange method  Electronic configuration, General methods of preparation of transuranic elements, IUPAC nomenclature of the super heavy elements with atomic number (Z) greater than 100. |
| Teaching            | Tutorials                | Tests | Inorganic Chemistry           | Analysis of Commercial Sample -  9. Determination of titrable acidity in the given sample of milk or lassi.  10. Determination of percentage purity of boric acid using supplied sodium hydroxide                                                   |
|                     | 2                        | 2     |                               |                                                                                                                                                                                                                                                     |
| Month: Au           |                          |       | 4. Bio-inorganic Chemistry    | Essential and trace elements in biological process,                                                                                                                                                                                                 |
| Teaching Da         | *                        | 12    |                               | Metalloporphyrins with                                                                                                                                                                                                                              |
| Periods Allotted 11 |                          | 11    |                               | special reference to                                                                                                                                                                                                                                |
| Periods Ava         | ilable                   |       |                               | hemoglobin and myoglobin,                                                                                                                                                                                                                           |
| Teaching            |                          |       |                               | Biological role of alkali and                                                                                                                                                                                                                       |
| 8                   | Practicals/<br>Tutorials | Tests |                               | alkaline earth metal ions<br>with special referenc to<br>Na+, K+ and Ca2+                                                                                                                                                                           |

Sign of the Head

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OAC CO-ORDINATOR
COLLEGE, ISLAMPUR



Principal
Yashwantrao Chavan Mahavidyalaya
URUN-ISLAMPUR, (Dist. Sang

Teachers Name: Kumbhar Dattatraya Tanaji

Subject : Computer Science Class : B. Sc. Part III (Sem VI)

Paper No: DSE-22F Paper Title: ASP.NET

|                   |                          |                             | Topic /Unit                            | Sub-units Planned                                                                                                                                               |
|-------------------|--------------------------|-----------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: May        |                          | Unit – 1: - Introduction to | Web browser, web server                |                                                                                                                                                                 |
| Teaching Day      | ys                       | 26                          | ASP.Net                                | HTTP request response                                                                                                                                           |
| Periods Allot     | ted                      | 21                          |                                        | structure     HTML form elements                                                                                                                                |
| Periods Avai      | lable                    | •                           |                                        | GET/POST method                                                                                                                                                 |
| Teaching          | Practicals/<br>Tutorials | Tests                       |                                        | Client side and Server side programming.                                                                                                                        |
| 13                | 8                        |                             |                                        |                                                                                                                                                                 |
| Month: Jun        | e                        | Š.                          |                                        | Web form life cycle, page                                                                                                                                       |
| Teaching Da       | ys                       | 25                          |                                        | events,                                                                                                                                                         |
| Periods Allot     | tted                     | 20                          |                                        | Visual studio IDE.                                                                                                                                              |
| Periods Avai      | lable                    |                             |                                        | <ul> <li>Server Controls</li> <li>Validation Controls</li> <li>Navigation controls</li> <li>Master Page.</li> </ul>                                             |
| Teaching          | Practicals/<br>Tutorials | Tests                       |                                        |                                                                                                                                                                 |
| 12                | 8                        |                             |                                        |                                                                                                                                                                 |
| Month: July       | 7                        |                             | Unit – II: Asp.Net State<br>Management | <ul> <li>Cross page postback property of button,</li> <li>Response.Redirect,</li> <li>Server.transfer, Response.Write,</li> <li>Hiddenfield control,</li> </ul> |
| Teaching Da       | ys                       | 26                          |                                        |                                                                                                                                                                 |
| Periods Allo      | tted                     | 22                          |                                        |                                                                                                                                                                 |
| Periods Avai      | lable                    |                             |                                        |                                                                                                                                                                 |
| Teaching          | Practicals/<br>Tutorials | Tests                       |                                        |                                                                                                                                                                 |
| 14                | 8                        |                             |                                        |                                                                                                                                                                 |
| Month: Au         | oust                     |                             |                                        | View State, Cookies,                                                                                                                                            |
| Teaching Da       |                          | 10                          | -                                      | Session, Application Global.asax                                                                                                                                |
| Periods Allo      |                          | 10                          |                                        |                                                                                                                                                                 |
| Periods Available |                          |                             |                                        | • Caching                                                                                                                                                       |
| Teaching          | Practicals/<br>Tutorials | Tests                       |                                        |                                                                                                                                                                 |
| 9                 | 1                        |                             |                                        |                                                                                                                                                                 |

Sign of the Teacher

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IQAC CO-ORDINATOR Y. C. COLLEGE, ISLAMPUR



Principal
Yashwaantrao Chavan Mahavidyalaur
URUNASBAMPUR (100)st Sauce

2020-21

Teachers Name: Kumbhar Dattatraya Tanaji

Subject : Computer Science

Paper No : DSE-23F

Class : B. Sc. Part III (Sem VI)

Paper Title: Linux Part- II

|                   |                          | //      | Topic /Unit                           | Sub-units Planned                                                                                     |
|-------------------|--------------------------|---------|---------------------------------------|-------------------------------------------------------------------------------------------------------|
| Month: May        | y                        |         | Unit – 1: - Memory                    | Swapping                                                                                              |
| Teaching Da       | ys                       | 26      | Management and Advanced               | Demand Paging                                                                                         |
| Periods Allo      | tted                     | 20 vi   | <ul> <li>ex Mode- handling</li> </ul> |                                                                                                       |
| Periods Avai      | ilable                   |         |                                       | Multiple Files                                                                                        |
| Teaching          | Practicals/<br>Tutorials | Tests   |                                       |                                                                                                       |
| 12                | 8                        |         |                                       |                                                                                                       |
| Month: Jun        | e                        | edia.   |                                       | Named Buffer                                                                                          |
| Teaching Da       | ys                       | 25      |                                       | Numbered Buffers                                                                                      |
| Periods Allo      | tted                     | 20      |                                       | <ul> <li>Entering control</li> </ul>                                                                  |
| Periods Avai      | lable                    | alice - |                                       | characters                                                                                            |
| Teaching          | Practicals/<br>Tutorials | Tests   |                                       | Searching for a characters                                                                            |
| 12                | 8                        |         |                                       |                                                                                                       |
| Month: July       | ,                        |         | Unit – II: Filters and                | sed and sed options                                                                                   |
| Teaching Da       | ys                       | 26      | Advanced Shell Programming            | grep and grep options                                                                                 |
| Periods Allo      | tted                     | 20      |                                       | <ul><li>Line Addressing</li><li>Multiple Instruction(-E</li></ul>                                     |
| Periods Avai      | lable                    |         |                                       |                                                                                                       |
| Teaching          | Practicals/<br>Tutorials | Tests   |                                       | <ul> <li>and -F)</li> <li>Context Addressing</li> <li>Writing Selected Lines to<br/>a File</li> </ul> |
| 12                | 8                        |         |                                       |                                                                                                       |
| Month: Aug        | ust                      |         |                                       | Shell and subshell                                                                                    |
| Teaching Da       | ys                       | 10      |                                       | Command Line                                                                                          |
| Periods Allot     | ted                      | 10      |                                       | Arguments                                                                                             |
| Periods Available |                          |         | Exporting Shell Variables             |                                                                                                       |
| Teaching          | Practicals/<br>Tutorials | Tests   |                                       | <ul><li>Arrays</li><li>Shell Functions</li></ul>                                                      |
| 10                | 0                        |         |                                       |                                                                                                       |

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Y. C. COLLEGE, ISLAMPUR



Principal

Yashwantrao Chayan Mahavidyalaya URUN-ISLAMPUR, (Dist. Sang

Teachers Name : Jagatap Nilesh Ramesh

Subject : Computer Science

Paper No: DSE-24F

Class : B. Sc. Part III (Sem VI)

Paper Title: Python Part -II

|                   |                          | *************************************** | Topic /Unit                | Sub-units Planned                                             |
|-------------------|--------------------------|-----------------------------------------|----------------------------|---------------------------------------------------------------|
| Month: May        | 7                        |                                         | Unit – 1: - Functions      | Defining a function                                           |
| Teaching Days     |                          | 26                                      |                            | Calling a function                                            |
| Periods Allot     | -07.05                   | 21                                      |                            | <ul> <li>Types of functions</li> </ul>                        |
| Periods Avai      | lable                    | 2.270                                   |                            | ***                                                           |
| Teaching          | Practicals/<br>Tutorials | Tests                                   |                            |                                                               |
| 14                | 7                        |                                         |                            |                                                               |
| Month: Jun        | e                        | 5                                       |                            | Function Arguments                                            |
| Teaching Da       | ys                       | 26                                      |                            | <ul> <li>Anonymous functions</li> </ul>                       |
| Periods Allo      | tted                     | 20                                      |                            | <ul> <li>Global and local</li> </ul>                          |
| Periods Avai      | lable-                   |                                         |                            | variables                                                     |
| Teaching          | Practicals/<br>Tutorials | Tests                                   |                            |                                                               |
| 12                | 8                        |                                         |                            |                                                               |
| Month: July       | 7                        |                                         | Unit – II: Modules, Input- | Importing module                                              |
| Teaching Da       | ys                       | 25                                      | Output                     | Math module                                                   |
| Periods Allo      | tted                     | 20                                      |                            | Random module                                                 |
| Periods Avai      | lable                    |                                         |                            | <ul> <li>Packages</li> </ul>                                  |
| Teaching          | Practicals/<br>Tutorials | Tests                                   |                            | Composition                                                   |
| 12                | 8                        |                                         |                            |                                                               |
| Month: Aug        | gust                     |                                         |                            | Printing on screen                                            |
| Teaching Da       |                          | 10                                      | 19                         | <ul> <li>Reading data from<br/>keyboard</li> </ul>            |
| Periods Allo      | •                        | 10                                      |                            |                                                               |
| Periods Available |                          |                                         |                            | Opening and closing file     Deading and cuiting file         |
| Teaching          | Practicals/<br>Tutorials | Tests                                   |                            | <ul><li>Reading and writing files</li><li>Functions</li></ul> |
| 10                | 0_                       |                                         |                            |                                                               |





Principal '

Yashwantrao Chavan Mahavidyalava URUN-ISLAMPUR, (Dist. Sang

Name

: Ms. A. A. Patil

Subject : Physics

Class

: B.Sc. Part - III (Sem VI)

Paper No: XVI

Paper Title

: Energy Studies and Materials Science

| Month: April    |                           |       | Topic /Unit                                         | Sub-units Planned                                                                                                                                                                                                                                                                                                                                                           |
|-----------------|---------------------------|-------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Teaching Da     |                           | 17    | UNIT-I                                              | Energy, Forms of energy,                                                                                                                                                                                                                                                                                                                                                    |
| Periods Allo    | ·                         |       | 1. Energy and Wind Energy                           | Man and environment,                                                                                                                                                                                                                                                                                                                                                        |
| Periods Avai    | 42.000                    | 12    | _ Energy                                            | Energy chains, Classification of energy                                                                                                                                                                                                                                                                                                                                     |
| Teaching        | Practical's/<br>Tutorials | Tests | 1. Study of divergence of LASER beam                | resources, Energy demands, Age of renewable and alternatives, Wind energy, Wind energy chains, Wind energy quantum, Planning of wind farm, Wind power density, Efficiency factor of wind turbine (P-H graph), Power of wind turbine for a given incoming wind velocity, Types of a wind turbine generator unit, Horizontal axis propeller type wind turbine generator unit. |
| 8               | 4                         |       |                                                     | Bertrator unit.                                                                                                                                                                                                                                                                                                                                                             |
| Month: May      |                           |       | 2. Solar Energy                                     | Solar energy, Solar energy                                                                                                                                                                                                                                                                                                                                                  |
| Feaching Days   |                           | 25    |                                                     | spectrum (UV, Visible and                                                                                                                                                                                                                                                                                                                                                   |
| Periods Allotte |                           | 12    | 2. Measurement of                                   | IR), Utilization of solar                                                                                                                                                                                                                                                                                                                                                   |
| Periods Availa  | ble                       | ir a  | wavelength of LASER using plane diffraction grating |                                                                                                                                                                                                                                                                                                                                                                             |
| Teaching        | Practical's/<br>Tutorials | Tests |                                                     |                                                                                                                                                                                                                                                                                                                                                                             |

| 8             | 4                         |       |                                                                                                                                                               |                                                                                                                                                                                                                                                                                                         |
|---------------|---------------------------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Month: Ju     | ine                       |       | 3. Biomass Energy                                                                                                                                             |                                                                                                                                                                                                                                                                                                         |
| Teaching I    | Days                      | 26    | o. Biolilass Ellergy                                                                                                                                          | Origin of biomass, Biomass                                                                                                                                                                                                                                                                              |
| Periods Al    | Periods Allotted          |       |                                                                                                                                                               | energy resources (biomass from cultivated crops,                                                                                                                                                                                                                                                        |
| Periods Av    | ailable                   | 16    |                                                                                                                                                               | biomass from                                                                                                                                                                                                                                                                                            |
| Teaching      | Practical's/<br>Tutorials | Tests | Unit II  2. Nanotechnology  3. Obtaining Biprism fringes without lateral shift  4. Measurement of distance between two coherent sources in Biprism experiment | waste organic matter), Biomass conversion process (biochemical conversion- anaerobic digestion and fermentation)  Introduction to nanoscience and nanotechnology, Length scales relevant to nanoscience, Nanostructures: 1D, 2D and 3Dnanostructures, Size effects in nanosystems, Quantum confinement, |
| 8             | 8                         |       | V V                                                                                                                                                           |                                                                                                                                                                                                                                                                                                         |
| Month: July   |                           |       | 2. Nanotechnology                                                                                                                                             | Synthesis of nanostructured                                                                                                                                                                                                                                                                             |
| Teaching Da   | 5)                        | 26    | 7                                                                                                                                                             | materials(Top down and                                                                                                                                                                                                                                                                                  |
| Periods Allor | ted                       | 14    |                                                                                                                                                               | bottom up approach).                                                                                                                                                                                                                                                                                    |
| Periods Avai  | eriods Available          |       | 5. Polar graph using                                                                                                                                          | Photolithography, Ball                                                                                                                                                                                                                                                                                  |
| Teaching      | Practical's/<br>Tutorials | Tests | photocell/photovoltaic cell  6. Testing of electronic components                                                                                              | milling, Nucleation and growth, Applications of nanotechnology (Spintronics, Molecular electronics,                                                                                                                                                                                                     |
|               | 8                         |       |                                                                                                                                                               | Nanobiotechnology)                                                                                                                                                                                                                                                                                      |

Sign of the Head

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IQAC CO-ORDINATOR ...C. COLLEGE, ISLAMPUR



Principal

Yashwantrao Chavan Mahavidyalaya

URUN-ISLAMPUR, (Dist. Sang