## Govt. Polytechnic Hamirpur (H.P.)
### Lesson Planning (Theory)

| | |
|---|---|
| Branch : Electrical Engg. | Semester : Second |
| Subject : Mathematis-II | Session : 27th January 2024- 25th May2024 |
| Teacher: Subhash Chand | Class Room: |

**Proposed Lesson Plan:**

| Period:27/01/24 to 25/05/24 | | | | | Total Lectures Planned: 75 | | |
|---|---|---|---|---|---|---|---|
| S. No. | Week | No. of Lectures | Chapter/ Unit Description | Detail of Contents | | Reference Resources | Remarks |
| 1 | 5th Jan. | 2 | Algebra | Introduction to Mathematics-II<br><br>Introduction to determinants | | R1,R2 & R3 | |
| | 1st Feb. | 3 | | Elementary properties of determinants upto 3rd order Consistency of equations & Crammer's rule. | | | |
| | 2nd Feb. | 4 | | | | | |
| | 3rd Feb. | 5 | | Algebra of matrices, Inverse of a matrix, Matrix inverse method to solve a system of linear equations in 3 variables. | | | |
| 2 | 4th feb. | 4 | Integral calculus | Simple Integration by substitution method, | | R1,R2 & R3 | |
| | 5th Feb. | 3 | | by parts, by partial fractions | | | |
| | 1st Mar. | 2 | | (for linear factors only). | | | |
| | 2nd Mar. | 3 | | Use of formulas: $$\int_0^{\frac{\pi}{2}} \sin^n x \, dx \quad \int_0^{\frac{\pi}{2}} \cos^n x \, dx \quad \int_0^{\frac{\pi}{2}} \sin^n x \cos^m x \, dx$$ | | | |
| | 3rd Mar. | 5 | | Class Test -I | | | |
| | 4thMar. | 5 | | Applications of integration: Simple problem on evaluation of area bounded by a curve and axes. | | | |
| | 5th Mar. | 3 | | Calculation of Volume of a solid formed by revolution of an area about axes. | | | |
| 3 | 1st April | 5 | Co-Ordinate Geometry | Equations of straight line in various standard forms (without proof), inter section of two straight lines, | | R1,R2 & R3 | |
| | 2nd April | 3 | | angle between two lines, Perpendicular distance formula. | | | |
| | 3rd April | 4 | | General equation of a circle and its characteristics, To find the equation of a circle, given:  Centre and radius, | | | |
| | | | | Class Test -II | | | |
| | 4th April | 5 | | Three points lying on it , Coordinates of end points of diameter. | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | 5th April | 2 | | Definition of conics (Parabola, Ellipse, Hyperbola) their standard Equations without proof. | | |
| | 1st May | 3 | | Problems on conics when their foci, directrices and vertices are given. | | |
| 4 | 2nd May | 3 | Differential Equations | Solution of first order and first degree, differential equation by variable separable method (simple problems). | R1,R2 & R3 | |
| | 3rd May | 5 | | | | |
| | 4th May | 4 | | Revision of Whole syllabus. | | |

## Reference Resources

R1   Eagle Prakashan by Satish Kumar Sharma

R2   Dr. RD Sharma Applied mathematics

R3   B.S. Grewal Higher Engineering Mathematics

Signature of Teacher with Date       Signature of H.O.D.  with Date

Branch : _Electrical Engg._

Subject : _SCA_

Teacher: _Subhash Chand / Vibha Sharma_

Semester : Second

Session : 27th January 2024- 25th May 2024

Laboratory: Student Central Activities

## Proposed Lesson Plan:

| Pract. No. | Description of Practical/Activity | Reference for Procedure | Likely Dates | Actual Dates | Signature |
|---|---|---|---|---|---|
| 1 | Awareness regarding voting | | 5th week of January, 1st and 2nd week of Feb. | | |
| 2 | Painting/Poster Making | | 3rd, 4th and 5th week of Feb. | | |
| 3 | Sports/Cultural activity | | 1st, 2nd and 3rd week of March | | |
| 4 | Quiz/Essay Writing | | 4th, 5th week of March and 1st week of April | | |
| 5 | Campus beautification/Plantation | | 2nd, 3rd, 4th and 5th week of April | | |
| 6 | Minor Project (Recycling/Waste material use) | | 1st, 2nd, 3rd and 4th week of May | | |

Signature of Teacher

Signature of H.O.D.