

LESSON PLAN (First Semester)**Subject: Applied Mathematics-I****Name of Faculty: Dr. PINKI****Discipline: Common**

| Week | DAY | Theory (Topics) |
|--------------------------------------|-----|--|
| 1 | 1 | Definition of complex number, real and imaginary parts |
| | 2 | Polar and Cartesian Form and their inter conversion |
| | 3 | Conjugate of a complex number |
| | 4 | Modulus/argument of complex no. |
| 2 | 1 | Addition subtraction, multiplication and division of complex number. |
| | 2 | Numericals complex number |
| | 3 | Fundamental Rules of Logarithms |
| | 4 | Logarithm conversation Log to exp and vice versa |
| 3 | 1 | Numericals Logarithms |
| | 2 | Assignment-I |
| | 3 | Factorial |
| | 4 | Permutation, combination |
| 4 | 1 | Binomial theorem expansion |
| | 2 | General Term, Middle Term/ Co- eff. of x^n |
| | 3 | Binomial theorem for any index |
| | 4 | Revision |
| 1st Sessional test | | |
| 5 | 1 | Matrices: Define/Types |
| | 2 | Addition subtraction of Matrices |
| | 3 | Multiplication of Matrices |
| | 4 | Determinants (up to 2 order) by Laplace method |
| 6 | 1 | Solution of equation by Cramer's Rule And Assignment-II |
| | 2 | Trigonometry: Concept of angle: measurement of angle |
| | 3 | Conversion of angles |
| | 4 | Fundamental Identities, Allied angles |
| 7 | 1 | Addition and subtraction formula |
| | 2 | Addition and subtraction formula numericals |
| | 3 | Transformation formula |
| | 4 | Numericals |
| 8 | 1 | Numericals |
| | 2 | Application: Angle of elevation/height/distance |
| | 3 | Numericals |
| | 4 | Revision |
| 2nd Sessional test | | |
| 9 | 1 | Point: Distance Formula |
| | 2 | Mid-Point Formula |
| | 3 | Area of Triangle |
| | 4 | Straight line: Slope of a line |

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| 10 | 1 | Equation of straight line in various standards forms |
| | 2 | Equation of straight line in various standards forms |
| | 3 | Intersection of two straight lines, concurrency of lines |
| | 4 | Angle between two straight lines, parallel and perpendicular lines |
| 11 | 1 | Perpendicular distance formula, |
| | 2 | Conversion of general form of equation to the various forms |
| | 3 | Circle: General equation of a circle |
| | 4 | Centre and radius of circle |
| 12 | 1 | Find Standard equation of circle and centre and radius |
| | 2 | Find general equation of circle and centre and radius |
| | 3 | To find the equation of a circle, given three points lying on it |
| | 4 | To find the equation of a circle given coordinates of end points of a diameter, Assignment-III |
| 13 | 1 | Theoretical Introduction of MATLAB |
| | 2 | Addition and subtraction of values Trigonometric functions |
| | 3 | Addition and subtraction of values Inverse Trigonometric functions |
| | 4 | General Practice |
| | | 3rd Sessional test |
| 14 | 1 | Practice of Previous Question Papers |
| | 2 | Practice of Previous Question Papers |
| | 3 | Practice of Previous Question Papers |
| | 4 | Practice of Previous Question Papers |
| 15 | 1 | Revision |
| | 2 | Revision |
| | 3 | Revision |
| | 4 | Revision |