

Lesson Plan (2026-2027)

Name : Dr. Priya
Subject : Applied Mathematics-1
Discipline : Common for all branches 1st Sem
Code : 250012
Duration : 03/08/2026-23/11/2026
Work Load : 4 Lectures per week

Day	Lecture
1	Complex Numbers: definition of complex number, real and imaginary parts of a complex number,
2	Polar and Cartesian Form and their inter conversion
3	Conjugate of a complex number, modulus and amplitude,
4	Addition, subtraction, multiplication and division of complex number
5	Revision
6	Logarithms and its basic properties
7	Revision
8	Binomial theorem (mathematical expression)
9	Binomial theorem (without proof) for; positive integral index (expansion and general form)
10	Revision
11	Binomial theorem for any index (expansion up to 3 terms - without proof)
12	First binomial approximation with application to engineering problems.
13	Revision
14	Determinants Evaluation
15	Determinants and Matrices – Evaluation of determinants (upto 2 nd order)
16	Revision
17	Solution of equations (upto 2 unknowns) by Crammer's rule,)
18	Definition of Matrices and its types, addition, subtraction (upto 2nd order).
19	Multiplication of matrices (upto 2nd order).
20	Revision
21	Revision
22	Revision
23	Concept of angle, measurement of angle in degrees, grades, radians and their conversions.
24	T-Ratios of Allied angles (without proof), Sum, Difference formulae and their applications (without proof).
25	Revision
26	Product formulae (Transformation of product to sum, difference and vice versa)

27	Applications of Trigonometric terms in engineering problems such as to find an angle of elevation, height, distance etc.
28	Revision
29	Cartesian and Polar co-ordinates (two dimensional), Distance between two points
30	Mid-point, of a triangle
31	Centroid of vertices of a triangle
32	Revision
33	Revision
34	Slope of a line, equation of straight line in various standards forms (without proof)
35	Slope intercept form, intercept form, one-point form, two-point form, symmetric form
36	Normal form, general form of slope
37	Revision
38	Intersection of two straight lines, concurrency of lines, angle between straight lines,
39	Revision
40	Parallel and perpendicular lines, perpendicular distance formula, conversion of general form of equation to the various forms.
41	Revision
42	General equation of a circle and its characteristics. To find the equation of a circle
43	Centre and radius
44	Three points lying on it
45	Revision
46	MATLAB Or SciLab software – Theoretical Introduction, MATLAB or Scilabas
47	Revision
48	Simple Calculator (Addition and subtraction of values –Trigonometric and Inverse function
49	Gernal practice of MATLAB
50	Gernal practice of MATLAB
51	Revision
52	Revision

Note: There will be Class Tests, Assignment work and Assesment Exam, Quizzes etc. will be given as per Academic Calendar.

Subject Teacher
(Dr. Priya)

PAC Committee
Member - 1
(Sh. Narender Rana)

PAC Committee
Member - 2
(Smt. Sonia)

PAC Committee
Member -3
(Dr. Jyoti Gupta)