PANIPATINSTITUTEOFENGINEERINGANDTECHNOLOGYP
ANIPAT
DEPARTMENTOFAPPLIEDSCIENCES&HUMANITIES

LESSONPLAN

SubjectName: -Engineering Mathematics - I

Branch/Semester:-1th Sem.(Session2024-25) **SubjectCode: -ASH-101**

Sr. No.	Lecture No.	Description of Topic	Lecture Plan Date	Methodology	Course Outcome	Actual Covered Date
1	L1	Introduction-CO, subject,books,exam pattern	22/8/24	Discussion	CO1	23/8/24
2	L2	Unit - I Matrices : Introduction	23/8/24	Lecture method	CO1	27/8/24
Content beyond syllabus		Determinant and their properties	26/8/24	Flip Learning	CO1	28/8/24
3	L3	Rank of a matrix - Minor method	27/8/24	Lecture method	CO1	28/8/24
4	L4	Rank of a matrix - Triangular form	28/8/24	Lecture method	CO1	29/8/24
5	L5	Normal forms	29/8/24	Lecture method	CO1	3/9/2024
6	L6	Inverse of a matrix - Guass Jordan Method	30/8/24	Lecture method	CO1	3/9/2024
7	L7	Problems on Guass Jordan method	2/9/2024	Lecture method	CO1	4/9/2024
8	L8	Linear Dependence and Independence of Vectors	3/9/2024	Lecture method	CO1	6/9/2024
9	L9	Linear system of non homogeneous equation by rank method	4/9/2024	Lecture method	CO1	10/9/2024
10	L10	Linear system of non homogeneous equation by rank method	5/9/2024	Lecture method	CO1	13/9/2024
11	L11	Linear system of homogeneous equation by rank method	6/9/2024	Lecture method	CO1	17/9/2024
12	L12	Linear system of non homogeneous equation by Guass Elimination method	9/9/2024	Lecture method	CO1	18/9/2024
13	L13	Linear system of homogeneous equation by Guass Elimination method	10/9/2024	Lecture method	CO1	19/9/24
Content beyond syllabus		Synthetic division	11/9/2024	Lecture method		24/9/2024
14	L-14	Unit - II - Eigen Values of a matrix	12/9/2024	Lecture method	CO2	24/9/2024
15	L-15	Eigen Vectors of a matrix	13/9/24	Lecture method	CO2	1/10/2024
16	L16	Problems	16/9/24	Lecture method	CO2	3/10/2024
17	L17	Problems	17/9/24	Lecture method	CO2	4/10/2024

18	L18	Symmetric and skew symmetric matrices	18/9/24	Lecture method	CO2	8/10/2024
19	L19	Properties of eigen values	19/9/24	Lecture method	CO2	9/10/2024
20	L20	Properties of eigen values	20/9/24	Lecture method	CO2	10/10/2024
21	L21	Linear Transformation	23/9/24	Lecture method	CO2	11/10/2024
22	L22	Orthogonal Transformation	24/9/24	Lecture method	CO2	14/10/2024
24	L23	Diagonalization of a matrix	25/9/24	Lecture method	CO2	15/10/2024
24	L24	Diagonalization of a matrix	26/9/24	Lecture method	CO2	16/10/2024
25	L25	Cayley Hamilton theorem and practice questions	27/9/24	Lecture method	CO2	17/10/2024
26	L26	Cayley Hamilton theorem and practice questions	30/9/24	Explanation Method	CO2	23/10/24
27	L27	Application of Cayley Hamilton theorem to find inverse of a matrix	1/10/2024	Lecture method	CO2	24/10/24
28	L28	Quadratic forms and Nature of the Quadratic forms	3/10/2024	Lecture method	CO2	25/10/24
29	L29	Reduction of Quadratic form to canonical forms by Orthogonal Transformation.	4/10/2024	Lecture method	CO2	28/10/24
30	L30	Reduction of Quadratic form to canonical forms by Orthogonal Transformation.	7/10/2024	Lecture method	CO2	4/11/2024
31	L31	Problems	8/10/2024	Lecture method	CO2	5/11/2024
32	L32	Unit - III - Differential calculus - I - Indeterminate forms	9/10/2024	Lecture method	CO3	6/11/2024
33	L33	Indeterminate forms	10/10/2024	Lecture method	CO3	7/11/24,
34	L34	Indeterminate forms	11/10/2024	Lecture method	CO3	11/11/2024
35	L35	Taylor's Series	14/10/24	Lecture method	CO3	12/11/2024
36	L36	Maclaurin's series	15/10/24	Lecture method	CO3	12/11/2024
37	L37	Problems on Taylor and Maclaurin series	16/10/24	Lecture method	CO3	13/11/24
38	L38	Asymptotes - Cartesian and polar coordinates	17/10/24	Lecture method	CO3	18/11/24
39	L39	Asymptotes - Cartesian and polar coordinates	23/10/24	Lecture method	CO3	19/11/24
40	L40	Asymptotes - Cartesian and polar coordinates	24/10/24	Lecture method	CO3	19/11/24
41	L41	Curvatue for cartesian, parametric and polar curves	25/10/24	Lecture method	CO3	21/11/24
42	L42	Radius of curvature	28/10/24	Lecture method	CO3	22/11/24
43	L43	Problems on curvature	29/10/24	Lecture method	CO3	22/11/24
44	L44	Tracing of curves: Cartesian curves	30/10/24	Lecture	CO3	25/11/24

				method		
45	L45	Tracing of curves: Cartesian curves	7/11/2024	Lecture method	CO3	25/11/24
46	L46	Tracing of curves: Polar curves	8/11/2024	Lecture method	CO3	26/11/24
47	L47	Rolle's Theorem	11/11/2024	Lecture method	CO3	27/11/24
48	L48	Rolle's Theorem	12/11/2024	Lecture method	CO3	27/11/24
49	L49	Lagrange's Mean Value theorem	13/11/2024	Lecture method	CO3	28/11/24
50	L50	Lagrange's Mean Value theorem	14/11/24	Lecture method	CO3	28/11/24
51	L51	Cauchy's Mean value theorems	15/11/24	Lecture method	CO3	3/12/2024
52	L52	Unit IV: Differential calculus - II - Beta and Gamma function	18/11/24	Lecture method	CO4	10/12/2024
53	L53	Jacobians	19/11/24		CO4	10/12/2024
Content beyond syllabus		Properties of Beta and Gamma function	20/11/24	Lecture method	CO4	11/12/2024
54	L54	Problems on Beta and Gamma function	21/11/24	Lecture method	CO4	12/12/2024
55	L55	Applications of definite integrals to evaluate surface and volume of revolution	22/11/24	Lecture method	CO4	13/12/24
56	L56	Applications of definite integrals to evaluate surface and volume of revolution	25/11/24	Lecture method	CO4	13/12/24
57	L57	Double Integral	26/11/24	Lecture method	CO4	16/12/24
58	L58	Change of order of Integration	27/11/24	Lecture method	CO4	17/12/24
59	L59	Change of order of Integration	28/11/24	Lecture method	CO4	18/12/24
60	L60	Triple Integration	29/11/24	Lecture method	CO4	19/12/24
61	L61	Application to area and volume using double and triple integral	2/12/2024	Lecture method	CO4	19/12/24
		Revision	3/12/2024	Flip Learning		
			4/12/2024	Flip Learning		
			5/12/2024	Flip Learning		
			6/12/2024	Flip Learning		
			9/12/2024	Flip Learning		
			10/12/2024	Flip Learning		
			11/12/2024	Flip Learning		
			12/12/2024	Flip		

			Learning		
		13/12/2024	Flip Learning		