

# LESSON PLAN

Name Of The Institute:		C. V. Raman Polytechnic
Department:		Mathematics
Semester/Division/Branch:		1 <sup>st</sup> Semester
Subject Name With Code:		Engineering Mathematics - I (Th.3)
Total No. Of Class (Required):		75
Faculty Name:		Dr. Soumyarani Mishra
Class No.	<i>Brief Description Of The Topic/Chapter To Be Taught</i>	Remarks
1	Matrices	
2	Types Of Matrices	
3	Algebra Of Matrices	
4	Algebra Of Matrices(Examples)	
5	Determinant	
6	Determinant(Examples)	
7	Properties Of Determinant	
8	Properties Of Determinant(Examples)	
9	Properties Of Determinant(Examples)	
10	Minors And Cofactors	
11	Adjoint Matrix	
12	Inverse Of A Matrix	
13	Solution Of Simultaneous Equations By Cramer's Rule	
14	Cramer's Rule(Examples)	
15	Cramer's Rule(Examples)	
16	Solution Of Simultaneous Equations By Matrix Inverse Method	
17	Matrix Inverse Method(Examples)	
18	Matrix Inverse Method(Examples)	



19	Trigonometrical Functions	
20	Signs Of T-Ratios	
21	Trigonometric Identities	
22	Examples	
23	T-Ratios At Different Angles	
24	Examples	
25	<b>Limits Of The Values Of T-Ratios:</b>	
26	Formulas	
27	Examples	
28	Examples	
29	Compound Angles, Multiple And Sub-Multiple Angles	
30	Example	
31	Inverse Trigonometric Functions	
32	Formula	
33	Examples	
34	Introduction Of Geometry In Two Dimension	
35	Distance Formulae, Division Formulae	
36	Examples	
37	Area Of A Triangle	
38	Examples	
39	Slope Of A Line, Angle Between Two Lines, Condition Of Perpendicularity And Parallelism	
40	Examples	
41	Different Forms Of Straight Lines	
42	Examples	
43	Equation Of A Line Passing Through A Point And (I) Parallel To A Line (II) Perpendicular To A Line	
44	Examples	
45	Equation Of A Line Passing Through The Intersection Of Two Lines	
46	Distance Of A Point From A Line	

47	Circle	
48	Equation Of A Circle- Center Radius Form	
49	Examples	
50	End Point Of Diameter Form	
51	Examples	
52	General Equation Of A Circle	
53	Examples	
54	Introduction Of Geometry In Two Dimension	
55	Distance Formulae, Division Formulae	
56	Examples	
57	Direction Ratio, Direction Cosine	
58	Examples	
59	Angle Between Two Lines (Condition Of Parallelism And Perpendicularity)	
60	Examples	
61	Equation Of A Plane - General Form	
62	Angle Between Two Planes	
63	Examples	
64	Perpendicular Distance Of A Point From A Plane	
65	Examples	
66	Equation Of A Plane Passing Through A Point	
67	Equation Of A Plane I) Parallel To A Plane (Ii) Perpendicular To A Plane	
68	Examples	
69	Sphere	
70	Equation Of A Sphere- Center Radius Form	
71	Examples	
72	End Point Of Diameter Form	
73	Examples	
74	General Equation Of A Sphere	
75	Examples	

S. M. Ashu

Faculty Signature

K. K. K.