

# LESSON PLAN

<b>Name Of The Institute:</b>	C. V. Raman Polytechnic
<b>Department:</b>	Mathematics
<b>Semester/Division/Branch:</b>	2 <sup>nd</sup> Sem
<b>Subject Name With Code:</b>	Engineering Mathematics - II (Th.3)
<b>Total No. Of Class (Required):</b>	75
<b>Faculty Name:</b>	Dr. Soumyarani Mishra

Class No.	<i>Brief Description Of The Topic/Chapter To Be Taught</i>	Remarks
1	Introduction	
2	Types Of Vectors	
3	Representation Of Vector	
4	Magnitude And Direction Of Vectors	
5	Addition And Subtraction Of Vectors	
6	Position Vector	
7	Examples	
8	Scalar Product Of Two Vectors	
9	Examples	
10	Geometrical Meaning Of Dot Product	
11	Angle Between Two Vectors	
12	Examples	
13	Scalar And Vector Projection Of Two Vectors	
14	Vector Product And Geometrical Meaning	
15	Examples	
16	Set Theory	

17	Definition Of Function, Based On Set Theory	
18	Types Of Functions- Constant Function, Identity Function, Absolute Value Function	
19	Types Of Functions- The Greatest Integer Function, Trigonometric Function	
20	Exponential Function, Logarithmic Function	
21	Introduction Of Limit	
22	Existence Of Limit	
23	Methods Of Evaluation Of Limit	
24	Methods Of Evaluation Of Limit(Derivation)	
25	Examples	
26	Definition Of Continuity Of A Function At A Point And Problems Based On It	
27	Examples	
28	Derivatives	
29	Derivative Of A Function At A Point	
30	Algebra Of Derivative	
31	Derivative Of Standard Functions	
32	Derivative Of Standard Functions	
33	Derivative Of Standard Functions	
34	Derivative Of Composite Function (Chain Rule )	
35	Examples	
36	Derivative Of Composite Function (Chain Rule )	
37	Examples	
38	Methods Of Differentiation Of Parametric Function	
39	Implicit Function	
40	Logarithmic Function	
41	A Function With Respect To Another Function	
42	Applications Of Derivative	
43	Successive Differentiation	
44	Successive Differentiation	
45	Partial Differentiation	

46	Partial Differentiation	
47	Partial Differentiation	
48	Examples	
49	Integration	
50	Definition Of Integration As Inverse Of Differentiation	
51	Integrals Of Standard Functions	
52	Integrals Of Standard Functions	
53	Methods Of Integration - Integration By Substitution	
54	Examples	
55	Integration By Parts	
56	Examples	
57	Integration Formula Derivation	
58	Examples	
59	Examples	
60	Examples	
61	Definite Integrals	
62	Properties Of Definite Integrals	
63	Examples	
64	Application Of Definite Integrals	
65	Examples	
66	Examples	
67	Differential Equation	
68	Order And Degree	
69	Examples	
70	Solution Of Differential Equation I) 1st Order And 1st Degree Equation By The Method Of Separation Of Variables	
71	Examples	
72	Examples	
73	ii) Linear Differential Equation	

74	Examples	
75	Examples	

*G. Mishra*  
Signature Of The Faculty

*Kastha L. Roudran*  
Signature Of The H.O.D