

# LESSON PLAN

Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action Upon Review
1	8/10/14	Introduction of L.D.E of 2 <sup>nd</sup> order and degree.	I	CR		
2	9/10	Exact diff equations.	I	"		
3	10/10	Finding I.F using Inspection method and solving	I	"		
4	13/10	I.F of Non-Exact and homogeneous and solving	I	"		
5	14/10	I.F of y f(x) dx + x g(y) dy = 0 and solving d.e.	I	"		
6	15/10	Another two methods for finding I.F and solving	I	"		
7	16/10	Linear d.e.	I	"		
8	17/10	Bernoulli d.e.	I	"		
9	20/10	orthogonal Trajectories of Cartesian curves.	I	"		
10	21/10	O.T of polar Curves and Newton's Law of Cooling	I	"		
11	22/10	Problems on Newton's Law of Cooling	I	"		
12	24/10	Law of natural growth	I	"		
13	25/10	Law of natural decay.	I	"		
14	27/10	Introduction of Higher order L.D.E. with Constant coeff.	II	CR		
15	28/10	Complete Solution, Rules for finding C.F.	II	"		
16	29/10	Annular operators D. and P.I.	II	"		
17	30/10	Finding P.I of $f(D)y = Q(x)$ when $Q(x) = e^{ax}$ .	II	"		
18	31/10	"	II	"		
19	3/11	P.I. of $f(D)y = Q(x)$ when $Q(x) = \cos ax$ or $\sin ax$	II	"		
20	5/11	"	II	"		

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21	6/11/14	P.T of $f(x) y = Q(x)$ $Q(x)$ is a poly in $x$	II	CR		
22	7/11	P.T of $f(x) y = Q(x)$ $Q$ is a polynomial in $x$	II	"		
23	10/11	P.T of $f(x) y = Q(x)$ $Q(x) = e^{ax} v(x)$	II	"		
24	11/11	"	II	"		
25	12/11	P.T of $f(x) y = Q(x)$ $Q(x) = x^m v(x)$	II	"		
26	13/11	Method of variation of parameters	II	"		
27	14/11	"	II	"		
28	17/11	Applications: LCR Circuits	II	"		
29	18/11	Simple Harmonic motion	II	"		
30	19/11	Partial Differentiation - Introduction	III			
31	20/11	Total derivative, Chain Rule	III			
32	21/11	Generalized mean value theorem	III			
33	24/11	Jacobians	III			
34	25/11	"	III			
35	26/11	Functional dependence	III			
36	27/11	"	III			
37	28/11	Taylor's series for two variables	III			
38	1/12	Maclaurin's series	III			
39	2/12	Maxima and minima of function	III			
40	3/12	"	III			



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41	4/12	extremes without constraints	III	CR		
42	5/12	Lagrange's method.	III	"		
43	8/12	Applications of Integration to Lengths	IV	CR		
44	9/12	"	IV	"		
45	10/12	Volume of revolution in Cartesian co-ords.	IV	"		
46	11/12	Volumes of polar coordinates.	IV	"		
47	12/12	Solved problems	IV	"		
48	15/12	Surface Area of revolution	IV	"		
49	16/12	Area of polar coordinates	IV	"		
50	17/12	Solved problems	IV	"		
51	18/12	Introduction to multiple Integrals.	IV	"		
52	19/12	double Integrals.	IV	"		
53	22/12	change of variables.	IV	"		
54	23/12	Change of order of integration.	IV	"		
55	24/12	Triple Integrals.	IV	"		
56	26/12	Triple Integrals of polar coordinates.	IV	"		
57	27/12	Solved problems on multiple Integrals.	IV	"		
58	29/12	moment of inertia	IV	"		
59	30/12	Introduction to vector Differentiation.	V	CR		
60	31/12	vector diff operator, curl operator, gradient	V	"		

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Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action Upon Review
61	1/1/2015	Directional derivative, Divergence, Curl & Gauss's Thm.	<u>V</u>	CR		
62	2/1	Problems on Div, (curl).	<u>V</u>	"		
63	5/1	vector identities.	<u>V</u>	"		
64	6/1	Vector Line Integrals	<u>V</u>	"		
65	7/1	work done, potential funcn. Surface Integrals.	<u>V</u>	"		
66	8/1	Volume Integrals.	<u>V</u>	"		
67	9/1	Green's theorem and verification.	<u>V</u>	"		
68	10/1	Divergence theorem and verification.	<u>V</u>	"		
69	12/1	Stokes theorem and verification.	<u>V</u>	"		