

# LESSON PLAN

Period S.No.	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks
6 <sup>th</sup>	1	19/08/16 Basic concepts in O.D.E. Linear O.D.E of order 1 (Introductory)	I	C.R.	
7 <sup>th</sup>	2	19/08/16 To solve O.D.E by Variable separable	"	"	
9 <sup>th</sup>	3	22/08/16 By Exact method, I.F.	"	"	
7 <sup>th</sup>	4	23/08/16 By non-exact methods	"	"	
6 <sup>th</sup>	5	26/08/16 To solve O.D.E by Leibnitz linear D.E.	"	"	
7 <sup>th</sup>	6	26/08/16 By Bernoulli's D.E.	"	"	
4 <sup>th</sup>	7	29/08/16 Problems (Revision)	"	"	
7 <sup>th</sup>	8	30/08/16 Application of O.D.E. - Newton's law of cooling	"	"	
9 <sup>th</sup>	9	4/09/16 Law of growth & decay	"	"	
6 <sup>th</sup>	10	2/09/16 Orthogonal trajectories - In Cartesian form	"	"	
7 <sup>th</sup>	11	2/09/16 In polar form	"	"	
7 <sup>th</sup>	12	6/09/16 O.D.E. of 2nd & higher order with constant coefficients (Intro)	II	"	

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4 <sup>th</sup>	13	8/09/16 concept of C.I.S & by sub	II	C.R.	
6 <sup>th</sup>	14	9/09/16 problems to find $y_c$	"	"	
7 <sup>th</sup>	15	9/09/16 concept of $y_p$ , if $q(x) = e^{ax}$ and $\cos(ax) \sin(ax)$	"	"	
4 <sup>th</sup>	16	12/09/16 To find $y_p$ if $f(D)y = g(x)$ , if $g(x) = e^{ax} \cdot v(x)$	"	"	
5 <sup>th</sup>	17	15/09/16 To find $y_p$ , if $q(x) = x^m$	"	"	
6 <sup>th</sup>	18	16/09/16 To find $y_p$ , if $q(x)$ $= x \cdot v(x)$	"	"	
7 <sup>th</sup>	19	16/09/16 problems	"	"	
4 <sup>th</sup>	20	19/09/16 solve by method of variation of parameter	"	"	
7 <sup>th</sup>	21	20/09/16 sol <sup>n</sup> of O.D.E. by Cauchy-Euler's eq <sup>n</sup> .	"	"	
4 <sup>th</sup>	22	22/09/16 Total derivative, chain rule	III	"	
6 <sup>th</sup>	23	23/09/16 Generalized M.V.T.	"	"	
	24	Taylor's with Lagrange's remainder & also Maclaurin's series			



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7 <sup>th</sup>	24	23/09/16	problems	III	C.R.
4 <sup>th</sup>	25	24/09/16	Taylor's & Maclaurin's series	"	C.R.
7 <sup>th</sup>	26	27/09/16	problems	"	C.R.
4 <sup>th</sup>	27	29/09/16	Jacobian	"	C.R.
6 <sup>th</sup>	28	30/09/16	Functional dependence & independence	"	"
7 <sup>th</sup>	29	30/09/16	problems	"	"
4 <sup>th</sup>	30	3/10/16	Maxima & Minima formula & concept (with out constraints)	"	"
7 <sup>th</sup>	31	4/10/16	problems	"	"
7 <sup>th</sup>	32	6/10/16	problems	"	"
6 <sup>th</sup>	33	7/10/16	To find maximum (d) minimum of $f(x,y,z)$ with constraints	"	"
4 <sup>th</sup>	34	13/10/16	problems	"	"
6 <sup>th</sup>	35	14/10/16	problems	"	"
7 <sup>th</sup>	36	14/10/16	multiple - Integrals (double & triple integrals) (concept)	IV	"

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4 <sup>th</sup>	37	17/10/16 To evaluate double	IV	C.R		
		Integrals (rules)				
7 <sup>th</sup>	38	18/10/16 To find double	"	C.R.		
		integrals by using the				
		boundaries				
4 <sup>th</sup>	39	20/10/16 change of order of	"	"		
		integration (in cartesian)				
6 <sup>th</sup>	40	21/10/16 problems	"	"		
2 <sup>th</sup>	41	21/10/16 change of variables	"	"		
		in cartesian (concept)				
		& also polar				
4 <sup>th</sup>	42	24/10/16 problems	"	"		
7 <sup>th</sup>	43	25/10/16 Triple integrals	"	"		
4 <sup>th</sup>	44	27/10/16 problems (change of	"	"		
		variables in cartesian)				
6 <sup>th</sup>	45	28/10/16 change of variable	"	"		
		in polar (i.e. spherical				
		& cylindrical coordinates)				
7 <sup>th</sup>	46	28/10/16 problems	"	"		
4 <sup>th</sup>	47	1/11/16 problems	"	"		



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Period	Date (tentative)	Topic	Unit No.	Teaching Methodology	Remarks
48	3/11/16	vector calculus - concepts	II	C.R.	
		vector differentiation			
		Basic definitions			
49	4/11/16	directional derivative	"	"	
50	5/11/16	Gradient - concept	"	"	
		- problems			
51	7/11/16	Divergence - concept	"	"	
		- problems			
52	8/11/16	curl - concept - problems	"	"	
53	10/11/16	second order operators	"	"	
		& vector identities			
54	10/11/16	line integral concept	"	"	
		& problems			
55	11/11/16	work done, potential function	"	"	
56	15/11/16	surface integral	"	"	
		& its problems			
57	17/11/16	problems	"	"	
58	18/11/16	volume integrals	"	"	
		- problems			
59	18/11/16	Green's theorem, problems	"	"	

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60	21/11/16	Problems (Stolce's thm)	V	C.R.		
61	22/11/16	Gauss Divergence	"	"		
		thm, problems				
62	24/11/16	Problems	"	"		
63	25/11/16	Revision	"	"		
						8/11/16