

## G.H. RAISONI COLLEGE OF ENGINEERING & MANAGEMENT.

### TEACHING PLAN FOR THEORY

Class :- SE (A)

Branch:- Civil Engg.

Sub. :- Engg. Mathematics-III

Sub. Code :- BEML203

Lect. NO	Scheduled Date	Topic	Date on which actually covered	Reason for deviation (if any)
<b>L.D.E. &amp; IT's APPLICATION</b>				
1	3/7/17	L.D.E. Of nth order with const. coeff.	5/7/17	
2	5/7/17	P.I. by General method	6/7/17	
3	6/7/17	P.I. by Short cut method	6/7/17	
4	6/7/17	P.I. by Short cut method	10/7/17	
5	10/7/17	P.I. by Variation of parameter method	12/7/17	
6	12/7/17	Cauchy D.E.	13/7/17	
7	13/7/17	Legendre's D.E.	13/7/17	Extra
8	17/7/17	Simultaneous & symm. Simultaneous D.E.	17/7/17	
9	19/7/17	Modeling of problem on bending beam	19/7/17	
10	20/7/17	Whirling of shafts & mass spring system	20/7/17	
<b>CALCULUS OF VARIATION</b>				
11	24/7/17	Maxima of function	20/7/17	Extra
12	26/7/17	Minima of the function	24/7/17	
13	26/7/17	Variation of function & its properties	26/7/17	
14	27/7/17	Euler's equation	27/7/17	
15	31/7/17	Euler's equation for several dependant variable	27/7/17	Extra
16	2/8/17	Euler's equation for higher order	31/7/17	
17	3/8/17	Rayleigh- Ritz method	9/8/17	
18	7/8/17	Application	10/8/17	

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<b>PARTIAL DIFFERENTIAL EQUATION &amp; ITS APPLICATION</b>				
19	9/8/17	Lagrange's form	10/8/17	Extra
20	10/8/17	Linear homogeneous p.d.e. of nth order	14/8/17	
21	14/8/17	Problem related to variation of string	16/8/17	
22	16/8/17	Problem related to beam	17/8/17	
23	17/8/17	Concept of double Fourier integral		
24	21/8/17	Problem related to rectangular membrane		
25	23/8/17	Problems on string and beam		
26	24/8/17	Mix problem		
<b>INTRODUCTION TO OPTIMIZATION TECHNIQUES</b>				
27	28/8/17	Linear Programming problem		
28	30/8/17	Linear Programming problem		
29	31/8/17	Mathematical model function		
30	4/9/17	Mathematical model function		
31	6/9/17	L.P.P. by Graphical method		
32	7/9/17	L.P.P. by Graphical method		
33	11/9/17	L.P.P. by Simplex method		
34	13/9/17	L.P.P. by Simplex method		
<b>NUMERICAL METHOD(EQUATION)</b>				
35	14/9/17	Error of numerical calculation		
36	18/9/17	Error in series approximation		
37	20/9/17	Bisection method		
38	21/9/17	False- Position method		
39	25/9/17	Newton- Raphson method		
40	27/9/17	Gauss elimination method		
41	28/9/17	Gauss Jordan method		
42	2/10/17	Gauss Seidal method		
43	4/10/17	Crouts method		
44	5/10/17	Relaxation method		

Lect. NO	Scheduled Date	Topic	Date on which actually covered	Reason for deviation (if any)
<b>NUMERICAL METHOD (D.E.)</b>				
45	9/10/17	Taylor series method		
46	11/10/17	Taylor series method		
47	12/10/17	Picard's method		
48	16/10/17	Picard's method		
49	18/10/17	Euler's modified method		
50	23/10/17	Euler's modified method		
51	25/10/17	Runge-Kutta method of second order		
52	26/10/17	Runge-Kutta method of fourth order		
53	30/10/17	Milne Predictor-Corrector method		
54	1/11/17	Milne Predictor-Corrector method		

**Name & Sign. of the Faculty :**