



G H RAISONI COLLEGE OF ENGINEERING NAGPUR

(An Autonomous Institute affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur)

CRPF Gate No.3, Hingna Road, Digdoh Hills, Nagpur. Maharashtra-440016 (India)

Course wise Teaching Plan for Session : Summer Term 2018

Course : Mathematical Applications in Civil Engineering

Faculty : nvvaidya - Nalini V. Vaidya

Unit	Topic Code	Topic Covered	Date	Course	Section
1	1	Errors in series approximation, rounding of errors solutions of algebraic and transcendental equations. Iteration method	03/05/2018	BAML205	A
1	2	Bisection method, False position method	03/05/2018	BAML205	A
1	3	Newtin-raphson method and their convergences	05/05/2018	BAML205	A
1	4	solution of system of linear equations	05/05/2018	BAML205	A
1	5	Gauss elimination method, gauss Jordan method	07/05/2018	BAML205	A
1	6	gauss Seidel method	07/05/2018	BAML205	A
1	7	Crouts method and relaxation method	08/05/2018	BAML205	A
2	8	Numerical Methods (Differential Equations) Numerical solution of ordinary differential equation by Taylor series method	08/05/2018	BAML205	A
2	9	Picard's method	10/05/2018	BAML205	A
2	10	Runga-Kutta method	10/05/2018	BAML205	A
2	11	Euler modified method	12/05/2018	BAML205	A
2	12	Milne's Predictor corrector method.	12/05/2018	BAML205	A
2	13	Introduction to Optimization Techniques. Linear programming	14/05/2018	BAML205	A
3	14	mathematical model formulation	14/05/2018	BAML205	A
3	15	Solutions by Graphical	15/05/2018	BAML205	A
3	16	Solutions by Graphical	15/05/2018	BAML205	A
3	17	Simplex method	17/05/2018	BAML205	A
3	18	Simplex method	17/05/2018	BAML205	A
3	19	Simplex method	19/05/2018	BAML205	A
3	20	Periodic functions and their Fourier expansion	19/05/2018	BAML205	A



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3	21	Even and odd function(Problems)	21/05/2018	BAML205	A
4	22	Change of interval	21/05/2018	BAML205	A
4	23	Half range expansion	22/05/2018	BAML205	A
4	24	Partial Differential Equation. Partial Differential Equation of 1st order 1st degree i. e Langrange's form	22/05/2018	BAML205	A
4	25	Linear homogeneous p. d. equation of nth order with constant coefficient	24/05/2018	BAML205	A
4	26	Method of separation of variables.	24/05/2018	BAML205	A
4	27	Application to simple problems of variation of strings and beams	26/05/2018	BAML205	A
5	28	problems	26/05/2018	BAML205	A
5	29	prblems	28/05/2018	BAML205	A
6	30	Elementary concept of double Fourier series and their application to simple problems of vibration of rectangular membrane	28/05/2018	BAML205	A
6	31	Elementary concept of double Fourier series and their application to simple problems of vibration of rectangular membrane	29/05/2018	BAML205	A
6	32	different types of problems based on P D Equation of nth order with constant coefficient	29/05/2018	BAML205	A
6	33	Calculus of variations. Maxima and minima of function	31/05/2018	BAML205	A
6	34	variation and its properties	31/05/2018	BAML205	A
6	35	Euler's equation,	02/06/2018	BAML205	A
6	36	different types of problems based on Maxima and minima of function	02/06/2018	BAML205	A
6	37	different types of problems based on Maxima and minima of function	04/06/2018	BAML205	A
6	38	functionals dependent on 1st and 2nd order derivatives	04/06/2018	BAML205	A



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6	39	The Rayleigh-Ritz method, simple application.	05/06/2018	BAML205	A
6	40	The Rayleigh-Ritz method, simple application.	05/06/2018	BAML205	A
6	41	Numerical Methods (Equations) Errors of numerical calculation	07/06/2018	BAML205	A
1	42	Revision	07/06/2018	BAML205	A
2	43	Revision	09/06/2018	BAML205	A
3	44	Revision	09/06/2018	BAML205	A