

LESSON PLAN

Government Polytechnic, Asthawan ,Nalanda

Name of Faculty: Suman kumar
Branch : Civil Engineering
Semester : 3rd
Subject : Applied Mathematics
Lesson Plan Duration: 12 Weeks
Paper : Theory

Week	Unit No.	Lec. Day	Theory /Topic /Assignment/Test	Remarks
1 st	Unit -1	1	Definition of integration & integration of some standard functions	
	Unit-1	2	rules of integration(sum, difference & scalar multiplication)	
	Unit -1	3	Method of integration by substitution	
	Unit-1	4	Integration of rational functions	
2 nd	Unit -1	5	Method of integration by partial fraction	
	Unit-1	6	Integration by trigonometric transformation	
	Unit -1	7	Method of integration by parts	
	Unit-1	8	Some special integration	
3 rd	Unit-1	9	Definite integration with properties	
	Unit-1	10	Definite integration Properties continued...	
	Unit-1	11	Assignment/test-1	
	Unit-1	12	Application of definite integration as area bounded	
4 th	Unit-1	13	Application of definite integration as area bounded Continued...	
	Unit-1	14	Volume of revolution	
	Unit-1	45	Centre of gravity of rod ,plane lamina	
	Unit-1	16	Moment of inertia of uniform rod, rectangular lamina	
5 th	Unit-1	17	Theorem of parallel and perpendicular axes	
	Unit-1	18	Assignment/test-2	
	Unit-2	19	Definition of differential equation its order and degree	
	Unit-2	20	Formation of differential equation	
6 th	Unit-2	21	Solution of differential equation of first order and first degree by variable separable method.	
	Unit-2	22	Solution of differential equation reducible to variable separable method.	
	Unit-2	23	Homogeneous and non homogeneous equation	
		24	Exact differential equation	
7 th	Unit-2	25	Linear and Bernoulli's equation	
	Unit-2	26	Application of differential equation in rectilinear motion	
	Unit-2	27	Simple harmonic motion	
	Unit-2	28	Assignment/test-3	
8 th	Unit-3	29	Introduction to probability distribution	
	Unit-3	30	Binomial distribution	
	Unit-3	31	Problems on it	
	Unit-3	32	Poisson's distribution	

9 th	Unit-3	33	Problems on it	
	Unit-3	34	Normal distribution	
	Unit-3	35	Problems on it	
	Unit-3	36	Simple examples related to production process	
10 th	Unit-4	37	Assignment/test-4	
	Unit-4	38	Bisection method	
	Unit-4	39	Problems on it	
	Unit-4	40	Regula Falsi method	
11 th	Unit-4	41	Problems on it	
	Unit-4	42	Newton Raphson method	
	Unit-4	43	Problems on it	
	Unit-4	44	Gauss elimination method	
12 th	Unit-4	45	Problems on it	
	Unit-4	46	Gauss Seidal and Jacobi's method	
	Unit-4	47	Problems on it	
	Unit-4	48	Assignment/test-5	