



Lesson Plan-cum-Course Progress Report

Doc. Type: FM-TL-07

Rev. No: 1

Name of the Institute :	C V Raman Polytechnic, Bhubaneswar		
Department :	Mathematics		
Semester/Division/Branch :	3rd Semester/ ETC,EE		
Subject Name with code :	Engg. Mathematics-III		
Total No. of Class (Required) :	60	Page: 1	of 1
Faculty Name :	ANUJA PRAJAPATI	Date (Lesson Plan):	

Class No.	Brief Description of the Topic/Chapter to be taught	Status of Course Cover (write Yes, if taught)	Sign (Faculty/ LA)	Date (Course Covered)	Course Prog. Reviewed by	Remarks
1	Introduction to complex number, real and imaginary					
2	Discussion on complex conjugate and modulus of a complex					
3	Properties of a complex number					
4	Determination of three cube roots of unity and their					
5	State De-Moivre's theorem					
6	Problem solving on complex number					
7	Define rank of matrix					
8	Perform elementary row transformation to determine the					
9	State Rouche's theorem for consistency of a system of					
10	Solve equation on three unknown by testing of consistency					
11	Introduction on differential equation					
12	Define types of differential equation with an example					
13	Discussion on homogenous and non homogeneous linear					
14	Find the complementary solution of the differential					
15	Find the general solution of linear differential equations in					
16	Derive rules for finding CF and PI in terms of operator D					
17	Define partial differential equation					
18	Formation of PDE by eliminating the arbitrary constants					
19	Discussion on linear partial differential equation of the form					
20	Problem solving on PDE					
21	Introduction on Gamma function and their properties					
22	Discussion on Laplace Transform of a function and their					
23	Define inverse transformation and their formulas					
24	Derive Laplace transform of standard functions and explain					
25	Formula of LT of derivatives, Integrals, multiplication by t					
26	Explain the method of partial fraction to solve the inverse LT					
27	Define periodic functions and examples on that					
28	Problem practice on LT					
29	Explanation of shifting and linear property					
30	Problems on inverse LT					
31	Discussion on some important question					
32	Discussion on odd even function by graphically					
33	State Dirichlet's condition for the Fourier expansion of a					
34	Express periodic function f(x) satisfying Dirichlet condition					
35	Discussion on Euler's formula					
36	Problems on Fourier series					

Class No.	Brief Description of the Topic/Chapter to be taught	Status of Course Cover (write Yes, if taught)	Sign (Faculty/ LA)	Date (Course Covered)	Course Prog. Reviewed by	Remarks
37	Obtain FS of continuous function					
38	Discussion of point of discontinuity to obtain FS					
39	Problems on Fourier series					
40	Discussion on FS of even function					
41	Discussion of FS of odd functions					
42	Discussion of numerical methods for algebraic function					
43	Define algebraic function, transcendental function					
44	Discussion of bisection method to solve the algebraic					
45	Discussion of Newton Raphson method					
46	Problem discussion on the above method					
47	Define interpolation					
48	Explain finite difference table with suitable example					
49	Discussion on forward difference table					
50	Discussion on backward difference table					
51	Problems on forward and backward interpolation					
52	Define shift operator					
53	Establish the relation between shift operator and difference					
54	Derive Newton's forward interpolation formula for equal					
55	Derive Newton's backward interpolation formula for equal					
56	State Lagrange's interpolation formula for unequal spaces					
57	Problems on interpolation					
58	Problems on forward interpolation					
59	Problems on backward interpolation					
60	Numerical problems on algebraic function					

(Sign. of Faculty/LA)
Prepared by (Lesson Plan):

(Sign. of H.O.D./In-charge)
Reviewed by (Lesson Plan):

(Sign. Of Principal)
Approved by (Lesson Plan):