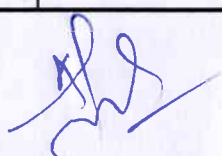


Dicipline:	EE	Semester: 3rd	Name of the Teaching Faculty: Sandhya Priya Basal	
Subject: Engineering Math-ITD	No of Days/Week Class Allotted: 4	Semester From date: 15.09.2022 To date: 12.01.2023	No. of Weeks: 15	
WEEK	Class Day	Theory Topics		
	1st	explain need for complex number system Introduce $i = \sqrt{-1}$ differentiable real & imagin		
	2nd	Define $z = a + ib$ form and explain the geo- metrical meaning of $z, \bar{z},  z $ stable		
	3rd	state & apply division for $z$ convert given expression into $a + ib$ form		
	4th	state & illustrate properties of $\bar{z},  z $		
	5th			
	1st	determine the cube roots of unity $1, \omega, \omega^2$ and state their properties,		
	2nd	state and apply de Moivre's theorem to find $z^n$		
	3rd	evaluate square root of a complex number i.e $\sqrt{a + ib}$ discuss previous year problem		
	4th	define & illustrate different types of matrices,		
	5th			
	1st	define rank of the matrix. evaluate rank using minor method		
	2nd	evaluate rank of a matrix by using elementary row & column operations.		
	3rd	state Rouché's Theorem Apply it to test consistency of a system of eqn		
	4th	solve a system of equations by backward substitution if it is consist		
	5th			

WEEK	Class Day	Theory Topics
	1st	Solve ODEs using $L^{-1}\{f(s)\}$ concept
	2nd	Class Test-1
	3rd	Define periodic function and give period with examples.
	4th	Convert $f(x) = x$ and $f(x) = x^2$ into Fourier series by using the Euler's
	5th	
	1st	Convert some continuous fun into fourier series by using the Euler's formula
	2nd	Convert functions with point of discontinuity into fourier series
	3rd	Define odd & even funs and state the process of finding their half series
	4th	Solve some more problems in fourier series.
	5th	
	1st	Discuss previous year questions.
	2nd	State the limitations of analyzer method of solving and explain the execution.
	3rd	Introduce iterative method & state the steps and procedure for bisection method
	4th	State the steps and procedure for Newton Raphson's Method.
	5th	

Discipline:		Semester:	Name of the Teaching Faculty:	
Subject:		No of Days/Week Class Allotted: _____	Semester From date: _____ To date _____	No. of Weeks:
WEEK	Class Day	Theory Topics		
	1st	solve an equation using both the methods & compare the efficiency of methods.		
	2nd	Introduce finite difference operators $\Delta$ , $E$ , $\Delta$ backward $\delta$ and establish		
	3rd	Formulate forward & backward table for calculating missing value in data table.		
	4th	Define Interpolation.		
	5th			
	1st	Use forward & backward Interpolation formula for finding $f(x)$ at $x = a$		
	2nd	State Lagrange's Interpolation formula for unequal intervals.		
	3rd	Formulate suitable polynomial for specific data table		
	4th	Class Test-2		
	5th			
	1st	explain numerical integration and its benefit.		
	2nd	Use both Trapezoidal rule & Simpson's $1/3$ rd rule on an integral with data		
	3rd	solve previous year problem		
	4th	Revision.		
	5th			




WEEK	Class Day	Theory Topics
	1st	
	2nd	
	3rd	
	4th	
	5th	
	1st	
	2nd	
	3rd	
	4th	
	5th	
	1st	
	2nd	
	3rd	
	4th	
	5th	