

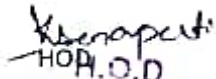


LESSON PLAN-2023(WINTER 2023)
SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR

Discipline- ELECTRICAL	Semester-3RD	Name of teaching faculty- LIKHITA PARIDA
SUBJECT- MATHEMATICS	No of days/ per week class allotted-	SEM From date- 01.08.2023 No of weeks-17
Week	Class day	Theory Topics
1ST	01.08.2023	Real and imaginary number
	02.08.2023	Real and imaginary number
	03.08.2023	Complex numbers, conjugate complex numbers, Modulus and Amplitude of a complex number
	04.08.2023	Complex numbers, conjugate complex numbers, Modulus and Amplitude of a complex number
	07.08.2023	Problems based on it
2ND	08.08.2023	Modulus complex number and amplitude of complex number
	09.08.2023	Modulus complex number and amplitude of complex number
	10.08.2023	Geometrical representation of complex number
	11.08.2023	Geometrical representation of complex number
	12.08.2023	Properties of complex number
	14.08.2023	Properties of Complex Numbers
3RD	16.08.2023	Determination of three cube roots of unity and their properties
	17.08.2023	Determination of three cube roots of unity and their properties
	18.08.2023	Determination of three cube roots of unity and their properties
	19.08.2023	De Moivre's theorem
	20.08.2023	De Moivre's theorem
4TH	22.08.2023	Revision
	23.08.2023	Introduction to matrices
	24.08.2023	Addition and multiplication of matrices
	25.08.2023	Transpose, sub matrix, minor, adjoint etc of matrices
	26.08.2023	Transpose, sub matrix, minor, adjoint etc of matrices
	28.08.2023	Problems of all above basic concepts of matrices
5TH	29.08.2023	Rank of matrix
	30.08.2023	Rank of matrix
	31.08.2023	Rank of matrix
1ST	02.09.2023	Perform elementary row transformations to determine the rank of a matrix
	04.09.2023	Perform elementary row transformations to determine the rank of a matrix

	06.09.2023	Row reduced Echelon form
	07.09.2023	Row reduced Echelon form
2ND	08.09.2023	State Rouche's theorem for consistency of a system of linear equations in n unknowns
	09.09.2023	State Rouche's theorem for consistency of a system of linear equations in n unknowns
	11.09.2023	Solve equations in three unknowns testing consistency
	12.09.2023	Solve equations in three unknowns testing consistency
	13.09.2023	Revision
	14.09.2023	Order and Degree of the differential equation
	3RD	15.09.2023
16.09.2023		Solution of linear differential equation
18.09.2023		Solution of linear differential equation of 1st order and 1st degree
20.09.2023		Homogeneous equation ,Exact equation
21.09.2023		1ST INTERNAL
22.09.2023		1ST INTERNAL
23.09.2023		1ST INTERNAL
4TH	25.09.2023	Define Homogeneous and Non – Homogeneous Linear Differential Equations with
	26.09.2023	Define Homogeneous and Non – Homogeneous Linear Differential Equations with
	27.09.2023	Find general solution of linear Differential Equations in terms of C.F. and P.I.
	28.09.2023	Find general solution of linear Differential Equations in terms of C.F. and P.I.
	30.09.2023	Derive rules for finding C.F. And P.I. in terms of operator D
1ST	03.10.2023	Derive rules for finding C.F. And P.I. in terms of operator D
	04.10.2023	Derive rules for finding C.F. And P.I. in terms of operator D
	05.10.2023	Define partial differential equation
	06.10.2023	Problems on it
	07.10.2023	Form partial differential equations by eliminating arbitrary constants and arbitrary functions
	09.10.2023	Solve partial differential equations of the form $Pp + Qq = R$
2ND	10.10.2023	Solve partial differential equations of the form $Pp + Qq = R$
	11.10.2023	Problems on it
	12.10.2023	Define Gamma function
	13.10.2023	Define Laplace Transform of a function and Inverse Laplace Transform
	14.10.2023	Define Laplace Transform of a function and Inverse Laplace Transform
3RD	16.10.2023	Define Laplace Transform of a function and Inverse Laplace Transform
	17.10.2023	Derive L.T. of standard functions and explain existence conditions of L.T.

	18.10.2023	Derive L.T. of standard functions and explain existence conditions of L.T.
	19.10.2023	Explain linear, shifting property of L.T.
	20.10.2023	Formulate L.T. of derivatives, integrals, multiplication by and division by .
	30.10.2023	Derive formulae of inverse L.T. and explain method of partial fractions
1ST	01.11.2023	Problems on It
	02.11.2023	Define periodic functions.
	03.11.2023	State Dirichlet's condition for the Fourier expansion of a function and it's convergence
	04.11.2023	State Dirichlet's condition for the Fourier expansion of a function and it's convergence
2ND	06.11.2023	Express periodic function satisfying Dirichlet's conditions as a Fourier series
	08.11.2023	Express periodic function satisfying Dirichlet's conditions as a Fourier series
	10.11.2023	State Euler's formulae
	11.11.2023	Define Even and Odd functions and find Fourier Series
	13.11.2023	Obtain F.S of continuous functions and functions having points of discontinuity
3RD	14.11.2023	Revision
	15.11.2023	Appraise limitation of analytical methods of solution of Algebraic Equations : Bisection method
	17.11.2023	Problems on above two methods
	18.11.2023	Explain finite difference and form table of forward and backward difference
	19.11.2023	Problems on forward and backward difference operator
	20.11.2023	Define shift Operator and establish relation between & difference operator.
4TH	21.11.2023	Derive Newton's forward and backward interpolation formula for equal intervals
	22.11.2023	Problems on N.F.D.I
	23.11.2023	State Lagrange's interpretation formula for unequal intervals
	24.11.2023	State Lagrange's interpretation formula for unequal intervals
	25.11.2023	Problems on lagranges interpolation
5TH	27.11.2023	Explain numerical integration and state: Newtons Cotes Method
	28.11.2023	Explain numerical integration and state: Newtons Cotes Method
	29.11.2023	Trapezoidal rule.
	30.11.2023	Simpson's 1/3rd rule


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