BHAI GURDAS INSTITUTE OF ENGINEERING & TECHNOLOGY

Department of Computer Science and Engineering
LESSON PLAN

Subject Name: - Mathematics - II   Subject code:- BTAM206-18
Year: -   2022   **Semester: - 2nd**

Lecture	Unit	days/week	Topic	Teaching
Lecture 1:			Introduction to Laplace Transform	Presentation
Lecture 2:			Basic result of Laplace Transform	Presentation
Lecture 3:		week-1	Properties of Laplace	Chalk board
Lecture 4:			First Shifting Property	Chalk board
Lecture 5:			Second Shifting Property	Chalk board
Lecture 6:			Doubt session	Chalk board
Lecture 7:			Change of Scale property	Chalk board
Lecture8:			Multiplication property	Chalk board
Lecture 9:			Division property	Chalk board
Lecture 10:		week-2	Unit Step Function and Dirac Delta Function	Chalk board
Lecture 11:			Inverse Laplace Transforms	Chalk board
Lecture 12:			Doubt session	
Lecture 13:	Unit 1:		Basic result of Inverse Laplace	Presentation
Lecture 14:			Properties of Inverse Laplace Transform	Presentation
Lecture 15:	Integral Transforms		First Shifting Property of Inverse Laplace	Chalkboard
Lecture 16:		week-3	Second Shifting Property of Inverse Laplace	Chalk board
Lecture 17:			Change of Scale property of Inverse Laplace	Chalk board
Lecture 18:			Doubt session	Chalk board
Lecture 19::			Multiplication property of Inverse Laplace	Chalk board
Lecture 20:			Division property of Inverse Laplace	Chalk board
Lecture 21:		week-4	Fourier Series	Chalk board
Lecture 22:			Half Range Sine Series	Chalk board
Lecture 23:			Half Range Cosine Series	Chalk board
Lecture 24:			Doubt session	Chalk board
Lecture 25:			Fourier Transforms	Presentation

Lecture 26:			Basic concepts of First order Second order ODE's	Chalk board
Lecture 27:		week-5	Geometrical meaning of ODE of First order	Lecture method
Lecture 28:			Solutions of Separable ODE's	Chalk board
Lecture 29:			Exact ODE's of First order	Chalk board
Lecture 30:			Doubt session	Chalk board
Lecture 31:			Equation Reducible to Exact Equations	Chalk board
Lecture 32:			Exact ODE's of Second order	Chalk board
Lecture 33:		week-6	Equations Solvable for p	Chalk board
Lecture 34:			Equations Solvable for y	Chalk board
Lecture 35:			Equations Solvable for x	Chalk board
Lecture 36:	Unit 2: First and second linear ODE's		Doubt session	Chalk board
Lecture 37:			Clairaut's Equation	Chalk board
Lecture 38			Linear ODE's	Chalk board
Lecture 39:			Equations reducible to the Linear Form	Chalk board
Lecture 41:			Solving ODE's by Laplace Transform	Chalk board
Lecture 42:			Homogeneous Linear ODE's of	Chalk board
Lecture 43:		Week-7	Doubt session	Chalk board
Lecture 44:			Equation reducible to Homogeneous	Chalk board
Lecture 45:			Euler – Cauchy Equations	Presentation
Lecture 46:		week-8	Wronskian	Presentation
Lecture 47:			Non-Homogeneous ODE's	Chalk board
Lecture 48:			Solution by method of Variation of Parameters	Chalk board
Lecture 49:			Doubt session	Chalk board
Lecture 50:			Power series method	Chalk board
Lecture 51:			Legendre's Equations	Chalk board
Lecture 52:	Unit 3: Series solution of ODE's , special functions'	week-9	Legendre Polynomials	Chalk board
Lecture 53:			Bessel's Equation	Chalk board
Lecture 54:			Bessel Functions	Chalk board
Lecture 55:			Doubt session	Chalk board
Lecture 56:			Sturm Liouville Boundary Problems	Presentation
Lecture 57:			Orthogonal Functions	Chalk board
Lecture 58:		week-l0	Basic concepts of PDE's	Chalk board
Lecture 59:			Classification of PDE's	Chalk board

Lecture 60:	Unit 4: Partial Differential equation	week-11	Solutions of PDE's : Separables	Chalk board
Lecture 61:			Doubt session	Chalk board
Lecture 62:			Separables of variables by Fourier Transform	Chalk board
Lecture 63:			Separables of variables by Laplace Transforms	Chalk board

Reference	
Engineering Mathematics by BS Grewal	
Engineering Mathematics by BS Grewal	

Differenti
al equation
by Dr.
Jitendra
Rattan

Differenti
al equation
by Dr.
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Engineering
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