

LESSON PLAN

SESSION -2025-26

SUBJECT: Applied Mathematics-I

SEMESTER: 1st

BRANCH: - CSE/Mechanical/ET &T

UNIT NUMBER	NAME OF THE TOPIC	NO OF CLASS REQUIRED	REMARK
Unit-1.0 Algebra	1.1 Determinants		
	1.11 Concept and properties of determinants	02	
	1.12 Solution of simultaneous equations in three unknowns by Cramer's rule	02	
	1.2 Matrices		
	1.21 Algebra of Matrices		
	1.22 Inverse of Matrices	03	
	1.23 Solution of Simultaneous equations by matrix inversion method of order 3x3 Assignment Given	02	
	Doubt Class, Quiz conduction	02	
	Unit Test	1	
Unit-2.0 Differential Calculus	2.1 Basic Trigonometry		
	2.11 Multiple and sub multiple angles	02	
	2.2 Functions and Limits		
	2.21 Independent and dependent variables		
	2.22 Different types of functions	02	
	2.23 Concept of Limit and its evaluation		
	2.3 Differentiation of elementary functions		
	2.31 Differentiation of Algebraic, Trigonometric, Exponential and Logarithmic functions	03	
	2.32 Differentiation of sum, product, quotient of two functions, Assignment given	02	
	Doubt Class, Quiz conduction	02	
	Unit Test	1	
Unit-3.0 Applications of Differential Calculus	3.1 Second order derivatives- Second order derivatives (without examples)	02	
	3.2 Equation of Tangent and Normal		
	3.21 Equation of Tangent and Normal for functions of one variable only	02	
	3.3 Maxima and minima	02	
	3.31 Maxima and minima for functions of one variable only, Assignment Given	03	
		Doubt Class, Quiz conduction	02
	Unit Test	1	
Unit-4.0. Co-ordinate Geometry	4.1 Various forms of straight lines		
	4.11 Co-ordinate systems, slope point form, two point form		
	4.12 Distance between two points, division of a line segment	02	
	4.13 Two points intercepts form, general form		
	4.14 Perpendicular distance from a point on the line, perpendicular distance between two parallel lines	02	
	4.2 Conic sections		
	4.21 Definition, standard forms	03	
4.22 General equation			
	4.23 Center and radius of a circle 4.24 Focus, axis, directrix, latus rectum and vertex of parabola and ellipse, Assignment Given	02	
	Doubt Class, Quiz conduction	02	
	Unit Test	1	

UNIT 5. Fundamentals of Statistics	5.1 Frequency distribution and central tendency		
	5.11 Introduction, graphical representation of frequency distribution	02	
	5.12 Central tendency, mean, median, frequency distribution and mode		
	5.2 Dispersion and deviation		
	5.21 Measure of dispersion.	03	
	5.22 Range, quartile deviation.		
	5.23 Standard deviation, root mean square deviation	02	
	5.3 Variance and coefficient of variance		
5.31 Variance and coefficient of variance, Assignment Given	02		
Doubt Class, Quiz conduction	02		
Unit Test	1		
Total Class Required		60	

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