LESSON PLAN

Discipline: COMMON	**Semester: 2nd**	**Name of the Teaching Faculty: ASISH SHARMA**
Subject: Mathematics-II(Th-3)	**No. of days/ per week class allotted: 4**	**Semester : 04/02/2025 to 17/05/2025 No. of Weeks: 15**
WEEK	**CLASS DAY**	**THEORY TOPICS**
1st	1st	**DETERMINANTS AND MATRICES-**Introduction ,Determinant of order 1,order2,order3.Value/Expansion of Determinants of Third Order
	2nd	Minors and Cofactors.Examples of finding minor &cofactor of determinant of different order
	3rd	Expansion of a Determinant in terms of Minors and Cofactors
	4th	Properties of Determinants&finding determinant
2nd	1st	Properties of Determinants&finding determinant
	2nd	Multiplication of Two Determinants
	3rd	Nature of System of Linear Equations and use of Cramer's rule
	4th	Types of Matrices,Algebra of Matrices
3rd	1st	Properties of Matrix Multiplication
	2nd	The Transpose of a Matrix,Different types of matrices
	3rd	Finding of Inverse of a Matrix
	4th	Matrix Method&use in solving system of linear equation
4th	1st	**CLASS TEST/QUIZ ON TOPICS COVERED IN UNIT-1**
	2nd	**INTEGRAL CALCULUS:-**Integration as an Inverse Operation of Differentiation,Properties of Indefinite Integrals
	3rd	Standard Results,Solved Examples on Integration as the Inverse Operation of Differentiation Solved Examples based on Standard Results
	4th	Solved Examples based on Standard Results
5th	1st	Integration By Substitution
	2nd	Integration by Parts
	3rd	Integration by Parts
	4th	Integration By Partial Fractions
6th	1st	Definite Integrals,Properties of Definite Integrals with examples
	2nd	Definite Integrals,Properties of Definite Integrals with examples
	3rd	Use of Walli's Integral Formula
	4th	Finding of area Bounded by a Curve and Axes
7th	1st	Volume of a Solid formed by Revolution of an Area about Axes (Using Disk Method)
	2nd	**CLASS TEST/QUIZ ON TOPICS COVERED IN UNIT-2**
	3rd	**CO-ORDINATE GEOMETERY-**Concept of Coordinate Geometry,Cartesian Co-ordinates System
	4th	Equation of Vertical Lines,Horizontal lines,Slope of a Line,Equation of Straight Line in Various Standard Forms,Angle between Two Lines
8th	1st	Angle between Two Lines,General equation of Circle
	2nd	Distance of Perpendicular from a Point on a Line,Distance between Two Parallel Lines
	3rd	Introduction of Circle,General Equation of Circle
	4th	Characteristics of a Circle

9th	1st	Finding equation of Circle Given Centre and Radius,Equation of Circle in Diameter Form
	2nd	Finding of equation of a Circle through Three Given Points
	3rd	General Equation of Parabola,Related examples.
	4th	General Equation of Hyperbola,Related examples.
10th	1st	General Equation of Elipse,Related examples.
	2nd	**CLASS TEST/QUIZ ON TOPICS COVERED IN UNIT-3**
	3rd	**VECTOR ALGEBRA:-**Introduction to Vectors,Difference between Scalar&Vector
	4th	Representation of Vectors in cartesian form,polar form
11th	1st	Rectangular Resolution of a Vector
	2nd	Vector Addition &Its properties
	3rd	Types of Vectors
	4th	Dot product orScalar Product
12th	1st	Application of Dot product
	2nd	Cross product or vector product of two vectors
	3rd	Application of Cross product
	4th	**CLASS TEST ON TOPICS COVERED IN UNIT-4**
13th	1st	**DIFFERENTIAL EQUATIONS:-** Introduction to Differential Equation ,Order and Degree of a Differential Equation
	2nd	Solution of an Ordinary Differential Equation
	3rd	Formation of a Differential Equation
	4th	Variable Separation Method
14th	1st	Salient Features of MATLAB
	2nd	Basics OF MATLAB
	3rd	Advantages of MATLAB,Disadvantages of MATLAB
	4th	shortcuts for MATLAB
15th	1st	HANDS ON PRACTICE OF SIMPLE PROBLEMS USING MATLAB
	2nd	**CLASS TEST ON TOPICS COVERED IN UNIT-5**
	3rd	**PRACTICE EXAM -I**
	4th	**PRACTICE EXAM -II**