

LESSON PLAN (WINTER-2026)

VENUS GROUP OF EDUCATIONAL & RESEARCH INSTITUTE,BAHANAGA,BALASORE-756042

Discipline: Civil, Electrical, E &tc, Mech

Semester: 2nd

Name of the Teaching Faculty: Binati Biswal

Subject: Math-ii

**No. of days per week
class allotted: 4 nos**

Semester From date :09/01/2026 To 08/05/2026

Week No.

Class Day

Theory/Practical Topic

1st

1st

Determinants and Matrices

2nd

Elementary properties of determinants up to 3rd order

3rd

consistency of equations

4th

Cramer's rule

2nd

1st

Algebra of matrices

2nd

matrix inverse method to solve a system of linear equations in 3 variables

3rd

Integral Calculus

4th

Integration as inverse operation of differentiation

3rd

1st

Simple integration by substitution, by parts

2nd

partial fractions (for linear factors only).

3rd

Use of formulas , and for solving problems Where m and n are positive

4th

Applications of integration for i.

4th

1st

Simple problem on evaluation of area bounded by a curve and axes

2nd

Simple problem on evaluation of area bounded by a curve and axes

3rd

Co-Ordinate Geometry

	4th	Equation of straight line in various standard forms (without proof)	
5th	1st	inter section of two straight lines,	
	2nd	angle between two lines	
	3rd	Parallel and perpendicular lines	
	4th	perpendicular distance formula.	
6th	1st	General equation of a circle and its characteristics. To find the equation of a circle, given:	
	2nd	Centre and radius,	
	3rd	Three points lying on it and	
	4th	Coordinates of end points of a diameter	
7th	1st	Definition of conics (Parabola, Ellipse, Hyperbola) their standard equations without proof.	
	2nd	Problems	
	3rd	on conics when their foci, directories or vertices are given.	
	4th	Vector Algebra	
8th	1st	Definition notation and rectangular resolution of a vector	
	2nd	Addition and subtraction of vectors. Scalar	
	3rd	and vector products of 2 vectors	
	4th	Simple problems related to work	
9th	1st	moment and angular velocity	
	2nd	Differential Equations	
	3rd	Solution of first order and first degree differential equation by variable separation method	
	4th	equation by variable separation metho	
	1st	problems). MATLAB – Simple Introduction	
	2nd	Determinants and Matrices	

10th	3rd	Elementary properties of determinants up to 3rd order, consistency of equations	
	3rd	Cramer's rule. Algebra of matrices, Inverse of a matrix, matrix inverse method to solve a system of linear equations in 3 variables.	
	4th	Integral Calculus	
11th	1st	Integration as inverse operation of differentiation. Simple integration by substitution, by parts	
	2nd	and by partial fractions (for linear factors only). Use of formulas ,	
	3rd	Where m and n are positive integers	
	4th	Applications of integration for i. Simple problem on evaluation of area bounded by a curve and axes.	
12th	1st	lculation of Volume of a solid formed by revolution of an area about axes. (Simple problems).	
	2nd	Co-Ordinate Geometry	
	3rd	Equation of straight line in various standard forms (without proof),	
	4th	inter section of two straight lines, angle between two lines.	
13th	1st	lines. Parallel and perpendicular lines, perpendicular distance formula	
	2nd	General equation of a circle and its characteristics. To find the equation of a circle, given:	
	3rd	Centre and radius	
	4th	Three points lying on it and	
14th	1st	Coordinates of end points of a diameter	
	2nd	Definition of conics (Parabola, Ellipse, Hyperbola) their standard equations without proof.	

	3rd	on conics when their foci, directories or vertices are given.
	4th	Vector Algebra
15th	1st	Addition and subtraction of vectors
	2nd	Solution of first order and first degree differential equation by variable separation method
	3rd	problems). MATLAB – Simple Introduction
	4th	Simple problems related to work, moment and angular velocity.