NILASAILA INSTITUTE OF SCIENCE & TECHNOLOGY SERGARH-756060, BALASORE (ODISHA)

(Approved by AICTE& affiliated to SCTE&VT, Odisha)

LESSON PLAN

SUBJECT: Th3. ENGINEERING MATHEMATICS – I

	CHAPTER WISE DISTRIBUTION OF PERIODS		
Sl.No.	Name of the chapter as per the Syllabus	No. of Periods as per the Syllabus	No. of periods actually needed
1	Matrices and Determinant	18	11
2	Trigonometry	15	05
3	co-ordinate Geometry in Two Dimensions	21	46
4	Co-ordinate Geometry in Three Dimensions Sphere	21	13
	TOTAL	75	75

Discipline: COMMON TO ALL	Semester: 1st	Name of the Teaching Faculty: Mr. SUBAS CHANDRA DASH
		Session-2023-24 Examination-2023(w)
Week	**Class Day**	**Theory / Practical Topics**
1ST	**1st**	DETERMINANT
	2nd	a) Types of matrices
	3rd	b) Algebra of matrices
	4th	c) Determinant
	5th	d) Properties of determinant
2ND	**1st**	e) Inverse of a matrix (second and third order) (Question should be on second order matrix)
	2nd	e) Inverse of a matrix (second and third order) (Question should be on second order matrix)
	3rd	f) Cramer's Rule (Question should be on two variables)
	4th	f) Cramer's Rule (Question should be on two variables)
	5th	g) Solution of simultaneous equations by matrix inverse method (Question should be on two variables)
3RD	**1st**	g) Solution of simultaneous equations by matrix inverse method (Question should be on two variables)
	2nd	TRIGONOMETRY a) Trigonometrical ratios
	3rd	b) Compound angles, multiple and sub-multiple angles (only formulae)
	4th	b) Compound angles, multiple and sub-multiple angles (only formulae)
	5th	c) Define inverse circular functions and its properties (no derivation)

4TH	1st	c) Define inverse circular functions and its properties (no derivation)
	2nd	CO-ORDINATE GEOMETRY IN TWO DIMENSION
	3rd	a) Introduction of geometry in two dimension
	4th	b) Distance formulae, division formulae, area of a triangle (only formulae no derivation)
	5th	b) Distance formulae, division formulae, area of a triangle (only formulae no derivation)
5TH	1st	c) Define slope of a line, angle between two lines (only F),
	2nd	c) Define slope of a line, angle between two lines (only F),
	3rd	c) Define slope of a line, angle between two lines (only F), condition of perpendicularity and parallelism
	4th	d) Different forms of straight lines (only formulae) i) One point form (ii) two point form (iii) slope form (iv) intercept form
	5th	d) Different forms of straight lines (only formulae) i) One point form (ii) two point form (iii) slope form (iv) intercept form (v) Perpendicular form
6TH	1st	e) Equation of a line passing through a point and (i) parallel to a line (ii) Perpendicular to a
	2nd	b) Compound angles, multiple and sub-multiple angles (only formulae)
	3rd	b) Compound angles, multiple and sub-multiple angles (only formulae)
	4th	b) Compound angles, multiple and sub-multiple angles (only formulae)
	5th	c) Define inverse circular functions and its properties (no derivation)

7TH	1st	c) Define inverse circular functions and its properties (no derivation)
	2nd	Co-ordinate geometry in two dimension
	3rd	Co-ordinate geometry in two dimension
	4th	a) Introduction of geometry in two dimension
	5th	a) Introduction of geometry in two dimension
8TH	1st	c) Define slope of a line, angle between two lines (only F),
	2nd	c) Define slope of a line, angle between two lines (only F),
	3rd	c) Define slope of a line, angle between two lines (only F),
	4th	d) Different forms of straight lines (only formulae) i) One point form (ii) two point form (iii) slope form (iv) intercept form
	5th	d) Different forms of straight lines (only formulae) i) One point form (ii) two point form (iii) slope form (iv) intercept form
9TH	1st	d) Different forms of straight lines (only formulae) i) One point form (ii) two point form (iii) slope form (iv) intercept form
	2nd	d) Different forms of straight lines (only formulae) i) One point form (ii) two point form (iii) slope form (iv) intercept form
	3rd	e) Equation of a line passing through a point and (i) parallel to a line (ii) Perpendicular to a
	4th	e) Equation of a line passing through a point and (i) parallel to a line (ii) Perpendicular to a
	5th	e) Equation of a line passing through a point and (i) parallel to a
10TH	1st	f) Equation of a line passing through the intersection of two lines
	2nd	f) Equation of a line passing through the intersection of two lines
	3rd	f) Equation of a line passing through the intersection of two lines
	4th	g) Distance of a point from a line
	5th	g) Distance of a point from a line

11TH	**1st**	g) Distance of a point from a line
	2nd	CIRCLE Equation of a circle
	3rd	(i) center radius form
	4th	(i) center radius form
	5th	(i) center radius form
12TH	**1st**	(ii) general equation of a circle
	2nd	(ii) general equation of a circle
	3rd	(ii) general equation of a circle
	4th	(iii) end point of diameter form
	5th	(iii) end point of diameter form
13TH	**1st**	(iii) end point of diameter form
	2nd	(iii) end point of diameter form
	3rd	CO-ORDINATE GEOMETRY IN THREE DIMENSIONS
	4th	a) Distance formulae, section formulae, direction ratio, direction cosine, angle between two lines (condition of parallelism
	5th	a) Distance formulae, section formulae, direction ratio, direction cosine, angle between two lines (condition of parallelism
14TH	**1st**	b) Equation of a plane i) General form, angle between two planes, perpendicular distance of a point from a plane,
	2nd	b) Equation of a plane i) General form, angle between two planes, perpendicular distance of a point from a plane,
	3rd	SPHERE a) Equation of a sphere
	4th	SPHERE a) Equation of a sphere
	5th	i) center radius form

15TH	**1st**	i) center radius form
	2nd	ii) general form
	3rd	ii) general form
	4th	iii) two end points of a diameter form (only formulae and problems)
	5th	iii) two end points of a diameter form (only formulae and problems)