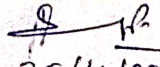


Lesson plan of 2022-23
(1st SEMESTER)

DISCIPLINE:	SEMESTER:1st	NAME OF THE TEACHING FACULTY: Mousumi Jena
SUBJECT: Engineering Mathematics-I	NO.OF DAYS/PER WEEK CLASS ALLOTTED: 5 + 1 (TUT)	SEMESTER FROM DATE: 25/10/22 To 20/02/23
WEEK	CLASS DAY	NO.OF WEEKS:15 THEORY/PRACTICAL TOPICS
1 ST	1 ST	1) MATRICES AND DETERMINANTS
	2 ND	a) Types of matrices
	3 RD	b) Algebra of matrices
	4 TH	c) Determinant
	5 TH	d) Properties of determinant
	6 TH	e) Inverse of a matrix (second and third order)
2 ND	1 ST	(Question should be on second order matrix)
	2 ND	f) Cramer's Rule (Question should be on two variables)
	3 RD	g) Solution of simultaneous equations by matrix inverse method
	4 TH	(Question should be on two variables)
	5 TH	2) TRIGONOMETRY
	6 TH	a) introduction to trigonometry
3 RD	1 ST	a) Trigonometrical ratios
	2 ND	b) Compound angles
	3 RD	c) multiple and sub-multiple angles (only formulae)
	4 TH	d) c) Define inverse circular functions
	5 TH	e) its properties (no derivation)
	6 TH	f) problems based on using properties
4 TH	1 ST	g) class notes checking
	2 ND	Tutorial class
	3 RD	3) CO-ORDINATE GEOMETRY IN TWO DIMENSIONS (Straight line)
	4 TH	a) Introduction of geometry in two dimension
	5 TH	b) Distance formulae, division formulae
	6 TH	c) area of a triangle (only formulae no derivation)
5 TH	1 ST	d) Define slope of a line, angle between two lines (only F),
	2 ND	e) condition of perpendicularity and parallelism.
	3 RD	f) Different forms of straight lines (only formulae)
	4 TH	g) i) One point form (ii) two point form
	5 TH	h) iii) slope form (iv) intercept form (v) Perpendicular form
	6 TH	i) Equation of a line passing through a point
6 TH	1 ST	J) (i) parallel to a line (ii) Perpendicular to a line
	2 ND	k) Equation of a line passing through the intersection of two lines
	3 RD	l) Distance of a point from a line
	4 TH	Problems based on this
	5 TH	Doubt clearing class
		Tutorials class

	6TH	Note checking
7 TH	1 ST	4) CIRCLE
	2 ND	a) Introduction to circle
	3 RD	b) Equation of a circle
	4 TH	c) radius
	5 TH	d) center
8 TH	1 ST	d) i) center radius form
	2 ND	e) (ii) general equation of a circle
	3 RD	f) diameter concept
	4 TH	g) (iii) end point of diameter form
	5 TH	Problems based on this
9 TH	1 ST	5) CO-ORDINATE GEOMETRY IN THREE DIMENSIONS
	2 ND	a) concept about geometry in 3-d
	3 RD	b) idea about co ordinates
	4 TH	C) a) Distance formulae,
	5 TH	section formulae
10 TH	1 ST	d) direction ratio, direction cosine
	2 ND	e) angle between two lines
	3 RD	f) condition of parallelism and perpendicularity
	4 TH	g) Equation of a plane
11 TH	1 ST	h) i) General form, angle between two planes
	2 ND	i) perpendicular distance of a point from a plane
	3 RD	j) equation of a plane passing through a point
	4 TH	k) i) parallel to a plane (ii) perpendicular to a plane
12 TH	1 ST	l) practices of problems
	2 ND	l) doubt clearing class
	3 RD	m) tutorials
	4 TH	n) checking of notes
13 TH	1 ST	o) extra classes
	2 ND	6) SPHERE
	3 RD	a) Equation of a sphere
	4 TH	b) concept of radius and center
14 TH	1 ST	c) i) center radius form
	2 ND	d) ii) general form
	3 RD	e) iii) two end points of a diameter form
	4 TH	f) (only formulae and problems)
15 TH	1 ST	g) practice problems over it
	2 ND	h) tutorials
	3 RD	i) checking of notes
	4 TH	j) doubt clearing class

Mousumi Tena
25.10.2022
SIGNATURE OF THE FACULTY


25/10/2022
SIGNATURE OF HOD