LESSON PLAN FOR SUMMER SEMESTER(2023-24)

Discipline : 1ST Semester(common)
Name of the Faculty: SAMIRA KUMAR PATHI (Lect. in Mathematics)

Subject: Engg. Mathematics-I	**5 therory & 1 tutorial classes per week**	**From: 16.08.2023 To: 11.12.2023** **No. of Weeks: 14 Total no. periods : 80 Theory + 15 Tutorial**	
Week	**Class Day**	**Theory**	**Range**
1st	1st	**Matrix and Determinant** a) Introduction and Tyoes of Matrix	16-08-2023 TO 19/08/23
	2nd	Tyoes of Matrix	
	3rd	Algebra of matrix	
	4th	*Tuitorial class*	
2nd	1st	Algebra of matrix	21-08-2023 TO 26/08/23
	2nd	Determinant	
	3rd	Determinant	
	4th	Properties of determinant	
	5th	Properties of determinant	
	6th	*Tuitorial class*	
3rd	1st	Properties of determinant	28-08-2023 TO 02/09/24
	2nd	Inverse of a matrix (second and third order)	
	3rd	Inverse of a matrix (second and third order)	
	4th	Inverse of a matrix (second and third order)	
	5th	Cramer's Rule (Question should be on two variables)	
	6th	*Tuitorial class*	
4th	1st	Cramer's Rule (Question should be on two variables)	04/09/23 TO 09/09/23
	2nd	Cramer's Rule (Question should be on two variables)	
	3rd	Solution of simultaneous equations by matrix inverse method	
	4th	Solution of simultaneous equations by matrix inverse method	
	5th	Solution of simultaneous equations by matrix inverse method	
	6th	*Tuitorial class*	
5th	1st	**TRIGONOMETRY** Trignometrical Ratios	11/09/23 TO 16/09/23
	2nd	Trignometrical Ratios	
	3rd	Trignometrical Ratios	
	4th	Trignometrical Ratios	
	5th	Trignometrical Ratios	
	6th	*Tuitorial class*	

6th	1st	Compound angles, multiple and sub-multiple angles	18/09/23 TO 23/09/23
	2nd	Compound angles, multiple and sub-multiple angles	
	3rd	Compound angles, multiple and sub-multiple angles	
	4th	Compound angles, multiple and sub-multiple angles	
	5th	Define inverse circular functions and its properties	
	6th	*Tuitorial class*	
7th	1st	Define inverse circular functions and its properties	25/09/23 TO 30/09/23
	2nd	Compound angles, multiple and sub-multiple angles	
	3rd	Define inverse circular functions and its properties	
	4th	Define inverse circular functions and its properties	
	5th	Define inverse circular functions and its properties	
	6th	*Tuitorial class*	
8th	1st	**CO-ORDINATE GEOMETRY IN TWO DIMENSIONS** Introduction of geometry in two dimension	02/10/23 TO 07/10/23
	2nd	Distance formulae, division formulae, area of a triangle	
	3rd	Distance formulae, division formulae, area of a triangle	
	4th	Define slope of a line, angle between two lines	
	5th	condition of perpendicularity and parallelism.	
	6th	*Tuitorial class*	
9th	1st	Different forms of straight lines (only formulae) i) One point form (ii) two point form (iii) slope form	09/10/23 TO 14/10/23
	2nd	Different forms of straight lines (only formulae) (iv) intercept form (v) Perpendicular form	
	3rd	Equation of a line passing through a point and (i) parallel to a line	
	4th	Equation of a line passing through a point (ii) Perpendicular to a line	
	5th	Equation of a line passing through the intersection of two lines	
	6th	*Tuitorial class*	

10th	1st	Equation of a line passing through the intersection of two lines	16/10/23 TO 20/10/23
	2nd	Equation of a line passing through the intersection of two lines	
	3rd	Distance of a point from a line	
	4th	Distance of a point from a line	
	5th	Distance of a point from a line	
DASAHARA VACATION			
11th	1st	**CIRCLE** Equation of a circle center radius form	30/10/23 TO 04/11/23
	2nd	Equation of a circle center radius form	
	3rd	general equation of a circle	
	4th	general equation of a circle	
	5th	general equation of a circle	
	6th	*Tuitorial class*	
12th	1st	Equation of a circle end point of diameter form	06/11/23 TO 11/11/23
	2nd	Equation of a circle end point of diameter form	
	3rd	Equation of a circle passing through three points	
	4th	**CO-ORDINATE GEOMETRY IN THREE DIMENSIONS** INTRUDUCTION	
	5th	Distance formulae	
	6th	*Tuitorial class*	
13th	1st	section formulae	13/11/23 TO 18/11/23
	2nd	direction ratio, direction cosine	
	3rd	direction ratio, direction cosine	
	4th	angle between two lines	
	5th	condition of parallelism and perpendicularity	
	6th	*Tuitorial class*	
14th	1st	condition of parallelism and perpendicularity	20/11/23 TO 25/11/23
	2nd	Equation of a plane i) General form	
	3rd	angle between two planes	
	4th	angle between two planes	
	5th	perpendicular distance of a point from a plane	
	6th	*Tuitorial class*	
15th	1st	perpendicular distance of a point from a plane	27/11/23 TO 02/12/23
	2nd	equation of a plane passing through a point and i) parallel to a plane	
	3rd	equation of a plane passing through a point and i) parallel to a plane	
	4th	equation of a plane passing through a point and ii) perpendicular to a plane	
	5th	equation of a plane passing through a point and ii) perpendicular to a plane	
	6th	*Tuitorial class*	

16th	1st	**SPHERE** Equation of a sphere i) center radius form	04/12/23 TO 09/12/23
	2nd	Equation of a sphere in General form	
	3rd	Equation of a sphere in General form	
	4th	Equation of a sphere in two end points of a diameter form	
	5th	Equation of a sphere passes through four points	
	6th	*Tuitorial class*	
17TH	1ST	DISCUSSION OF PREVIOUS YEAR QUESTION	11-12-2023

Sl. No.	Subject	Unit	Topic	Periods
A	Algebra	1	Matrices and Determinant	18
B	Trigonometry	2	Trigonometry	15
C	Two Dimensional Geometry	3 4	Co-ordinate Geometry in Two Dimensions (Straight Line) Circle	13 07
D	Three Dimensional Geometry	5 6	Co-ordinate Geometry in Three Dimensions Sphere	15 07
			TOTAL	**75**