

LESSON PLAN WINTER 23

DISCIPLINE: Mathematics		SEMESTER: 1 st	NAME OF THE TEACHING FACULTY: Smt Mamata Nayak, Smt. Sanghamitra Nath, Smt Supriya Khatua, Smt Sashmita Sahoo	
Subject: Engineering Mathematics-I		No. of Days/per week class allotted: 05classes	Semester From date: 21.08.2023 to Date: 11.12.2023	
Total Periods allotted : 75			No. of Weeks: 15	
SI No	Week	Class Day	Theory/Practical Topics	No of periods allotted
1	4TH Week/ August 2023	day 1	1. DETERMINANT:- 1.1 Determinant	1
		day 2	1.1. Determinant	1
		day 3	1.2. Minors	1
		day 4	1.3. properties of determinant	1
		day 5	1.4 solution of simultaneous linear equations by Cramer's rule	1
2	5TH Week/ AUGUST 2023	day 1	1.4 solution of simultaneous linear equations by Cramer's rule	1
		day 2	2. Matrix:- 2.1 matrix and its order	1
		day 3	2.2 types of matrices with examples	1
		day 4	2.2 types of matrices with examples	1
		day 5	2.3 equality of matrices	1
3	1ST Week/ SEPTEMBER 2023	day 1	2.4 multiplicative inverse of a matrix	1
		day 2	2.5 Solution of simultaneous equations by matrix method	1
		day 3	important questions of matrix and determinant.	1
		day 4	Solve Question from the book Elements of mathematics	1
		day 5	3. Trigonometry : - 3.1. Trigonometrical ratios.	1
4	2ND Week/ SEPTEMBER 2023	day 1	3.1. Trigonometrical ratios	1
		day 2	3.2. problems on Compound angles	1
		day 3	3.3. multiple angles	1
		day 4	3.3. multiple angles	1
		day 5	3.3. problems on multiple angles	1
5	3RD Week/ SEPTEMBER 2023	day 1	3.4. problems on Sub-multiple angles	1
		day 2	3.5. Define inverse circular functions	1
		day 3	3.5. Problems on inverse circular functions	1
		day 4	3.6. properties of inverse circular functions	1
		day 5	Solve Question from the book Elements of mathematics	1
6	4TH Week/ SEPTEMBER 2023	day 1	4. Co-ordinate Geometry in Two Dimension : - 4.1. Introduction of Geometry in two dimension.	1
		day 2	4.2 . Distance formula and problems.	1
		day 3	4.2 . Division formula and problems.	1
		day 4	4.2 area of a triangle. 4.3 Define slope of a line	1
		day 5	4.3 angle between two lines , conditions of parallelism and perpendicularity	1
7	1ST Week/ OCTOBER 2023	day 1	4.4. Different forms of straight-lines :- (i) slope and intercept form (ii) slope and one point form (iii) two point form (iv) intercept form (v) perpendicular form and problems of all forms	1
		day 2	4.5 . Equation of a line passing through a point and parallel to a line , Equation of a line passing through a point and perpendicular to a line	1
		day 3	4.6. Equation of a line passing through the intersection of two lines	1

		day 4	4.7. Distance of a point from a line and distance between two parallel lines	1
		day 5	Important problems on co-ordinate Geometry	1
8	2ND Week/ OCTOBER 2023	day 1	5. Circle :- 5.1. Equation of a circle (I) center radius form and problems	1
		day 2	5.2. general equation of a circle	1
		day 3	5.3.find center and radius of a circle	1
		day 4	5.4. end point of a diameter from	1
		day 5	5.5 equation of a circle passing through three given points.	1
				day 1
9	3RD Week/ OCTOBER 2023	day 2	6.2.distance formula, section formula	1
		day 3	6.3. direction cosines 6.4. relation between Direction cosines.	1
		day 4	6.5.Direction ratios	1
		day 5	6.6. projections.	1
				day 1
10	1st Week/ NOVEMBER 2023	day 2	6.8. angle between two lines (conditions of parallelism and perpendicularity)	1
		day 3	6.10. Equation of a plane (I) general form	1
		day 4	6.11. equation of a plane through three non-collinear points.	1
		day 5	6.12. passing through a point and perpendicular to a plane.	1
				day 1
11	2nd Week/ NOVEMBER 2023	day 2	6.14. planes parallel and perpendicular to co-ordinate axes.	1
		day 3	6.15. normal form of equation of a plane .	1
		day 4	6.16. transformation of the general equation of a plane to normal form	1
		day 5	6.17. planes parallel to co-ordinate axes.	1
				day 1
12	3rd Week/ NOVEMBER 2023	day 2	6.19. plane through the intersection of two planes	1
		day 3	6.20. position of a point with respect to a plane.	1
		day 4	6.21. perpendicular distance of a point from a plane	1
		day 5	6.22.bisector of the angles between two planes. Important Problems on planes.	1
				day 1
13	4th Week/ NOVEMBER 2023	day 2	7.2. general equation of a sphere	1
		day 3	7.3. find center and radius of a sphere	1
		day 4	7.4. end point of a diameter from	1
		day 5	7.5. equation of sphere passing through three non-collinear points.	1
				day 1
14	5TH Week/ NOVEMBER 2023	day 2	REVISION	1
		day 3	REVISION	1
		day 4	REVISION	1
		day 5	REVISION	1
				day 1
15	1ST Week/ DECEMBER 2023	day 2	REVISION	1
		day 3	REVISION	1
		day 4	REVISION	1
		day 5	REVISION	1
				day 1