

# LESSON PLAN

<b>DISCIPLINE:</b> MATH AND SCIENCE	<b>SEMESTER:</b> FIRST	<b>NAME OF THE TEACHING FACULTIES:</b> MRS.PRATIVA PATRA
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<b>SUBJECT:</b> ENGG. MATHEMATICS-I	<b>NO. OF. DAYS PER WEEK CLASS ALLOTED</b>	<b>SEMESTER:</b> FROM 16/08/2023 TO 11/12/2023
<b>WEEK</b>	<b>CLASS DAY</b>	<b>THEORY</b>
<b>1<sup>ST</sup></b>	1 <sup>ST</sup>	INTRODUCTION TO DETERMINANTS
	2 <sup>ND</sup>	INTRODUCTION TO TRIGONOMETRY
	3 <sup>RD</sup>	MINORS AND CO-FACTORS
	4 <sup>TH</sup>	TRIGONOMETRICAL RATIOS OF CERTAIN ANGLES
	5 <sup>TH</sup>	EXPANSION OF DETERMINANTS
	6 <sup>TH</sup>	PRACTICE PROBLEMS ON DETERMINANTS (TUTORIAL CLASS)
<b>2<sup>ND</sup></b>	1 <sup>ST</sup>	PROBLEMS BASED ON T-RATIOS
	2 <sup>ND</sup>	PROPERTIES OF DETERMINANTS
	3 <sup>RD</sup>	COMPOUND ANGLES
	4 <sup>TH</sup>	PROBLEMS USING PROPERTIES OF DETERMINANTS
	5 <sup>TH</sup>	PROBLEMS BASED ON COMPOUND ANGLES
	6 <sup>TH</sup>	PRACTICE PROBLEMS ON TRIGONOMETRY
<b>3<sup>RD</sup></b>	1 <sup>ST</sup>	CRAMER'S RULE
	2 <sup>ND</sup>	TRANSFORMATION OF SUMS OR DIFFERENCE IN-TO PRODUCTS
	3 <sup>RD</sup>	PROBLEMS USING CRAMER'S RULE
	4 <sup>TH</sup>	MULTIPLE ANGLES
	5 <sup>TH</sup>	MATRIX AND ITS ORDER
	6 <sup>TH</sup>	PRACTICE PROBLEMS ON CRAMER'S RULE
<b>4<sup>TH</sup></b>	1 <sup>ST</sup>	PROBLEMS BASED ON MULTIPLE ANGLES
	2 <sup>ND</sup>	TYPES OF MATRICES WITH EXAMPLES
	3 <sup>RD</sup>	SUB-MULTIPLE ANGLES
	4 <sup>TH</sup>	EQUALITY OF MATRICES
	5 <sup>TH</sup>	PROBLEMS BASED ON SUB-MULTIPLE ANGLES

	6 <sup>TH</sup>	DOUBT CLEAR ON MULTIPLE AND SUB-MULTIPLE ANGLES
5 <sup>TH</sup>	1 <sup>ST</sup>	ALGEBRA OF MATRICES
	2 <sup>ND</sup>	DEFINE INVERSE CIRCULAR FUNCTIONS
	3 <sup>RD</sup>	ADJOINT AND INVERSE OF A MATRIX
	4 <sup>TH</sup>	PROPERTIES OF INVERSE CIRCULAR FUNCTIONS
	5 <sup>TH</sup>	PROBLEMS ON ADJOINT AND INVERSE OF A MATRIX
	6 <sup>TH</sup>	PRACTICE PROBLEMS ON MATRICES
6 <sup>TH</sup>	1 <sup>ST</sup>	PROBLEMS ON USING PROPERTIES OF INVERSE TRIGONOMETRIC FUNCTIONS
	2 <sup>ND</sup>	SOLUTION OF A SYSTEM OF LINEAR EQUATIONS BY MATRIX METHOD
	3 <sup>RD</sup>	PROPERTIES OF INVERSE CIRCULAR FUNCTIONS
	4 <sup>TH</sup>	PROBLEMS BASED ON MATRIX METHOD
	5 <sup>TH</sup>	PROBLEMS ON USING PROPERTIES OF INVERSE TRIGONOMETRIC FUNCTIONS
	6 <sup>TH</sup>	CLASS NOTE CHECKING
7 <sup>TH</sup>	1 <sup>ST</sup>	INTRODUCTION OF GEOMETRY IN TWO DIMENSION
	2 <sup>ND</sup>	DISTANCE FORMULAE, DIVISION FORMULAE, AREA OF A TRIANGLE
	3 <sup>RD</sup>	PROBLEMS BASED ON DISTANCE, DIVISION AND AREA OF TRIANGLE
	4 <sup>TH</sup>	SLOPE OF A LINE AND ANGLE BETWEEN TWO LINES AND PROBLEMS
	5 <sup>TH</sup>	CONDITION OF PERPENDICULARITY AND PARALLELISM AND PROBLEMS
	6 <sup>TH</sup>	DOUBT CLEARING CLASS
8 <sup>TH</sup>	1 <sup>ST</sup>	DIFFERENT FORMS OF STRAIGHT LINES SLOPE-INTERCEPT FORM, ONE POINT FORM
	2 <sup>ND</sup>	PROBLEMS ON SLOPE AND ONE-POINT FORM
	3 <sup>RD</sup>	TWO-POINT FORM AND INTERCEPT FORM
	4 <sup>TH</sup>	PROBLEMS ON TWO-POINT AND INTERCEPT FORM
	5 <sup>TH</sup>	PERPENDICULAR FORM AND PROBLEMS
	6 <sup>TH</sup>	DOUBT CLEARING CLASS
9 <sup>TH</sup>	1 <sup>ST</sup>	EQUATION OF A LINE PASSING THROUGH A POINT AND PARALLEL TO A LINE
	2 <sup>ND</sup>	EQUATION OF A LINE PASSING THROUGH A POINT AND PERPENDICULAR TO A LINE
	3 <sup>RD</sup>	EQUATION OF A LINE PASSING THROUGH THE

		INTERSECTION OF TWO LINE
	4 <sup>TH</sup>	DISTANCE OF A POINT FROM A LINE
	5 <sup>TH</sup>	PROBLEMS BASED ON ABOVE
	6 <sup>TH</sup>	DOUBT CLEARING CLASS AND NOTE CHECKING
10 <sup>TH</sup>	1 <sup>ST</sup>	EQUATION OF A CIRCLE WITH CENTER AND RADIUS FORM
	2 <sup>ND</sup>	GENERAL EQUATION OF A CIRCLE
	3 <sup>RD</sup>	EQUATION OF A CIRCLE WITH END POINT OF DIAMETER FORM
	4 <sup>TH</sup>	PROBLEMS ON CIRCLE
	5 <sup>TH</sup>	PROBLEMS ON CIRCLE
	6 <sup>TH</sup>	DOUBT CLEARING CLASS
11 <sup>TH</sup>	1 <sup>ST</sup>	INTRODUCTION TO THREE DIMENSION
	2 <sup>ND</sup>	DISTANCE FORMULAE, SECTION FORMULAE
	3 <sup>RD</sup>	DIRECTION COSINE, DIRECTION RATIO OF A LINE
	4 <sup>TH</sup>	ANGLE BETWEEN TWO LINES, CONDITION OF PARALLELISM AND PERPENDICULARITY
	5 <sup>TH</sup>	EQUATION OF A PLANE IN GENERAL FORM
	6 <sup>TH</sup>	DOUBT CLEARING CLASS
12 <sup>TH</sup>	1 <sup>ST</sup>	ANGLE BETWEEN TWO PLANES
	2 <sup>ND</sup>	PERPENDICULAR DISTANCE OF A POINT FROM A PLANE
	3 <sup>RD</sup>	PROBLEMS
	4 <sup>TH</sup>	EQUATION OF A PLANE PASSING THROUGH A POINT AND (i) PARALLEL TO PLANE (ii) PERPENDICULAR TO A PLANE
	5 <sup>TH</sup>	PROBLEMS
	6 <sup>TH</sup>	DOUBT CLEARING CLASS
13 <sup>TH</sup>	1 <sup>ST</sup>	CLASS NOTE CHECKING
	2 <sup>ND</sup>	EQUATION OF A SPHERE WITH CENTER RADIUS FORM
	3 <sup>RD</sup>	GENERAL EQUATION OF A SPHERE
	4 <sup>TH</sup>	PROBLEMS BASED ON SPHERE
	5 <sup>TH</sup>	EQUATION OF A SPHERE WITH 2 END POINTS OF A DIAMETER
	6 <sup>TH</sup>	DOUBT CLEARING CLASS
14 <sup>TH</sup>	1 <sup>ST</sup>	NOTE CHECKING
	2 <sup>ND</sup>	PROBLEMS ON SPHERE
	3 <sup>RD</sup>	PROBLEMS ON 3-D

<b>15<sup>TH</sup></b>	<b>4<sup>TH</sup></b>	REVISION
	<b>5<sup>TH</sup></b>	CLASS TEST
	<b>6<sup>TH</sup></b>	DOUBT CLEARING CLASS
	<b>1<sup>ST</sup></b>	REVISION ON DETERMINANTS AND MATRICES
	<b>2<sup>ND</sup></b>	REVISION ON TRIGONOMETRY
	<b>3<sup>RD</sup></b>	REVISION ON INVERSE TRIGONOMETRIC FUNCTIONS
	<b>4<sup>TH</sup></b>	REVISION ON 2-D
	<b>5<sup>TH</sup></b>	REVISION ON 3-D
	<b>6<sup>TH</sup></b>	DOUBT CLEARING CLASS

Sd/-

Concerned Faculties:

Smt. PRATIVA PATRA

HOD

Govt. Polytechnic Kandhamal

Sd/-

Principal

Govt. Polytechnic Kandhamal

Phulbani