Badriprasad Institute of Technology, Sambalpur

Lesson plan for Theory –Engineering Mathematics -1

Semester & Branch: 1st Sem. & 2nd Sem.(Common to all) **Total Periods-66**

Name of the faculties: Mr Bhabani Sankar Meher **No of periods /week-5**

Miss Janakilata Behera

WEEK	CLASS	THEORY
1ST	1ST	Introduction to matrix and order of the matrix
	2ND	Types of metrices
	3RD	Algebra of matrices addition and subtraction
	4TH	Multiplication of matrices
	5TH	transpose of matrix and its properties
2ND	1ST	Introduction to determinant
	2ND	Minor and cofactor of determinant
	3RD	Inverse of matrix of order 2
	4TH	Inverse of matrix order 3
	5TH	Solution of system of equation by Matrix method order 2
3RD	1ST	Solution of system of equation by Matrix method order 3
	2ND	Books exercise
	3RD	Cramer's rule for two variables
	4TH	Cramer's rule for 3 variable
	5TH	Properties of determinant
4TH	1ST	Problems using properties of determinants
	2ND	Exercise of books
	3RD	Lines and angle in degree and radian
	4TH	Conversion of angle from degree to radian
	5TH	Trigonometric ratios and formula and its property
5TH	1ST	Domain and range of trigonometric function
	2ND	Compound angles and formula
	3RD	Multiple angle 2x and problems
	4TH	Multiple angles 3x and problems

Badriprasad Institute of Technology, Sambalpur

Lesson plan for Theory –Engineering Mathematics -1

Semester & Branch: 1st Sem. & 2nd Sem.(Common to all) **Total Periods-66**

Name of the faculties: Mr Bhabani Sankar Meher **No of periods /week-5**

Miss Janakilata Behera

	5TH	Introduction to inverse trigonometric function
6TH	1ST	Properties of inverse function
	2ND	Examples from books
	3RD	Simple identities and problem
	4TH	Exercise from books
	5TH	Previous year problem
7TH	1ST	Introduction to geometry in two dimension
	2ND	Distance formula division formula problems
	3RD	Area of different types of triangles
	4TH	Angle between two lines and slope of the line
	5TH	Condition of perpendicularity between the lines and parallelism
8TH	1ST	Equation of line using slope intercept form
	2ND	Slope and one point form
	3RD	Perpendicular form
	4TH	Introduction to circle
	5TH	Equation of circle using centre radius form
9TH	1ST	Equation of circles on given diameter
	2ND	General equation of circle
	3RD	Introduction to geometry in three dimension
	4TH	Distance formula
	5TH	Section formula
10TH	1ST	Direction ratios
	2ND	Direction cosines
	3RD	Angle between two lines

Badriprasad Institute of Technology, Sambalpur

Lesson plan for Theory –Engineering Mathematics -1

Semester & Branch: 1st Sem. & 2nd Sem.(Common to all) **Total Periods-66**

Name of the faculties: Mr Bhabani Sankar Meher **No of periods /week-5**

Miss Janakilata Behera

	4TH	Condition of parallelism and perpendicularity
	5TH	Equation of plane
11TH	1ST	Equation of plane general form
	2ND	Angle between two planes
	3RD	Perpendicular distance of a point from a plane
	4TH	Equation of plane passing through a point
	5TH	Equation of plane passing through a point and parallel to a plane
12TH	1ST	Perpendicular to a plane
	2ND	Equation of plane through three given point
	3RD	Examples from books
	4TH	Solving exercise questions
	5TH	Introduction of sphere
13TH	1ST	Equation of sphere
	2ND	Equation of sphere in centres centre radius form
	3RD	Equation of sphere in general form
	4TH	Two end points of a diameter form
	5TH	Examples from books
14TH	1ST	Exercise problems
	2ND	
	3RD	
	4TH	
	5TH	
15TH	1ST	
	2ND	
	3RD	
	4TH	
	5TH	

Badriprasad Institute of Technology, Sambalpur

Lesson plan for Theory –Engineering Mathematics -1

Semester & Branch: 1st Sem. & 2nd Sem.(Common to all) **Total Periods-66**

Name of the faculties: Mr Bhabani Sankar Meher **No of periods /week-5**

Miss Janakilata Behera

Sign of Faculty Sign of HOD