Discipline: MATHEMATICS & SCIENCE		Semester: 1st Semester	Name of the Teaching Faculty: DEEPAK KUMAR SAHOO & DHARASHREE PUTHAL		
Subject:ENGINEERING MATHEMATICS-I Sub code: Th-03		No of days /week class allotted:06	Semester from Date:25.10.2021 to 31.01.2022		
Month	week	Class Day	Theory topics	%covered	Remark
OCTOBER	1st	1st	Introduction to matrices		
		2nd	Types of Matrices		
		3rd	Addition and Equality of Matrices		
		4th	Multiplication of a matrix by a scalar		
		5th	Product of two Matrices		
		6th	Transpose of a matrix		
NOVEMBER	1st	1st	Determinant		
		2nd	Minor and Cofactor		
		3rd	Properties of Determinant		
		4th	Properties of Determinant		
		5th	Problems related to properties of determinant		
		6th	Adjoint of a matrix		
	2nd	1st	Inverse of a matrix		
		2nd	Problems		
		3rd	Solution of simultaneous equations		
		4th	Problems		
		5th	Cramer's rule		
		6th	Problems		
	3rd	1st	Introduction to 2D Geometry		
		2nd	Cartesian Co-ordinate system		
		3rd	Distance between two points		
		4th	Area of a Triangle		
		5th	Division Formula		
		6th	Problems		
	4th	1st	Slope of a line		
		2nd	Angle between two lines		
		3rd	Condition for Perpendicular and Parallel		
		4th	Co-linearity of three points		
		5th	Equation & Different forms of a straight line		
		6th	Problems		
DECEMBER	1st	1st	Equation of a line passing through a point and parallel to a line		
		2nd	Equation of a line passing through a point and perpendicular to a line		
		3rd	Equation of a line passing through intersection of two lines		
		4th	Distance of a point from a line		
		5th	Introduction to Circle		
		6th	Equation of a circle by Centre and Radius and End Points of Diameter		
	2nd	1st	General Equation of a Circle		
		2nd	Problems		
		3rd	Introduction to Trigonometry		
		4th	Trigonometric Ratios		
		5th	Trigonometric Functions		
		6th	Periodicity of trigonometric functions		

DECEMBER	3rd	1st	Compound Angles			
		2nd	Problems			
		3rd	Multiple Angles			
		4th	Problems			
		5th	Sub multiple Angles			
		6th	Problems			
	4th	1st	Sum and Product of Trigonometric Functions			
		2nd	Problems			
		3rd	Inverse Trigonometry			
		4th	Properties			
		5th	Properties			
		6th	Problems			
	5th	1st	Introduction to 3D Geometry			
		2nd	Cartesian Co-ordinate System			
		3rd	Distance Formula			
		4th	Section Formulae			
		5th	Applications			
		6th	Problems			
JANUARY	1st	1st	Direction Ratios and Cosines			
		2nd	Direction Ratios and Cosines			
		3rd	Angle Between two lines			
		4th	Condition for Perpendicularity and Parallelism			
		5th	Projection of a line segment			
		6th	Problems			
	2nd	1st	Equation of a Plane			
		2nd	Different forms of a Plane			
		3rd	General form of a Plane			
		4th	Angle Between two Planes			
		5th	Perpendicular distance of a point from a plane			
		6th	Problems			
	3rd	1st	Introduction to Sphere			
		2nd	Equation of a Sphere(Centre Radius form)			
		3rd	Equation of a Sphere(End Points of Diameter form)			
		4th	Problems			
		5th	General Equation of a Sphere			
		6th	Problems			
	4th	1st	Revision of Matrices			
		2nd	Revision of Determinant			
		3rd	Revision of Trigonometry			
		4th	Revision of 2D Geometry			
		5th	Revision of 3D Geometry			
		6th	Revision of Circle and Sphere			

Deepak
23.10.21
Lect in Math

Dharashree Puthed
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OSME, Keonjhar