GOVERNMENT POLYTECHNIC JAGATSINGHPUR
DEPARTMENT OF MATHEMATICS AND SCIENCE
LECTURE PLAN

DISCIPLINE-	SEMESTER: 1ST	NAME-P JAGADISH ACHARY
SUBJECT- ENGINEERING MATHEMATICS	No of days/week class allotted= 6	Date of commencement of classes: 9/11/2020 Closing of Attendance:31/3/2021 No. of Weeks:13

UNIT-1 (TRIGONOMETRY)

WEEK	CLASS DAY	THEORY/PRACTICAL TOPICS
1ST	1ST	Introduction to Trigonometry
	2ND	Trigonometry ratios
	3RD	ASTC Rule
	4TH	ASTC Rule Application
	5TH	ASTC Rule Application
	6TH	Addition formula & Difference formula
2nd	1ST	Transformation of Sums or difference into products
	2ND	Applications of Trigonometry
	3RD	Applications of Trigonometry
	4TH	Introduction to Inverse trigonometry
	5TH	Properties of Principal Inverse trigonometry
	6TH	Numerical on properties of Principal Inverse trigonometry
3rd	1ST	Numerical on properties of Principal Inverse trigonometry
	2ND	Previous year questions discussion
	3RD	Previous year questions discussion

UNIT-2 (DETERMINANTS & MATRICES)

WEEK	CLASS DAY	THEORY/PRACTICAL TOPICS
3rd	4TH	Introduction to Determinants & Matrices
	5TH	Types of matrices
	6TH	Algebra of Matrices
4th	1ST	Matrix Multiplication
	2ND	Minor & a factors of Matrix
	3RD	Adjoint & Inverse of Matrix
	4TH	Solve by Matrix method
	5TH	Cramer's Rule
	6TH	Solve by Matrix method & Cramer's Rule
5th	1ST	Properties of determinant
	2ND	Properties of determinant
	3RD	Solving determinants without expansion
	4TH	Solving determinants without expansion
	5TH	Solving determinants without expansion
	6TH	Solving determinants without expansion
6th	1ST	Solving determinants without expansion
	2ND	Previous year questions discussion
	3RD	Previous year questions discussion

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		UNIT-3 (TWO DIMENSION GEOMETRY)
6th	4TH	Introduction to two dimension Geometry
	5TH	Distance Formula & division formula
	6TH	Equation of line
7th	1ST	General form of Equation of line
	2ND	Angle between two lines & point of intersection
	3RD	Numericals on equation of line, angle & slope
	4TH	Numericals on equation of line, angle & slope
	5TH	Equation of a line parallel or perpendicular to a given line
	6TH	Equation of a line parallel or perpendicular to a given line
8th	1ST	Perpendicular distance of a point from line
	2ND	Numericals on Equation of a line
	3RD	Numericals on Equation of a line
	4TH	Introduction to circle & Equation of Circle
	5TH	General Equation of Circle
	6TH	Numericals on Equation of a circle
9th	1ST	Equation of a circle with given end points of a diameter
	2ND	Numericals on Equation of a circle
	3RD	Numericals on Equation of a circle
	4TH	Previous year questions discussion
	5TH	Previous year questions discussion
		UNIT-4 (THREE DIMENSION GEOMETRY)
9th	6TH	Introduction to three dimension Geometry
10th	1ST	Direction ratios & Direction Cosines
	2ND	Angle between two lines & projection
	3RD	Equation of plane
	4TH	General equation of plane
	5TH	Equation of plane through three given points
	6TH	Angle between two planes
11th	1ST	Distance of a point from a plane & equation of planes dissecting the angle between two given planes.
	2ND	Numericals
	3RD	Condition of Parallelism & perpendicularity
	4TH	Equation of a plane passing through a point & i. Parallel to a plane ii. Perpendicular to a plane
	5TH	Numericals on Equation of plane
	6TH	Numericals on Equation of plane
12th	1ST	Introduction to sphere & Equation of sphere

		2ND	General form of sphere
		3RD	Two end points of a diameter form
		4TH	Numericals on Equation of a Sphere
		5TH	Numericals on Equation of a Sphere
		6TH	Numericals on Equation of a Sphere
	13th	1ST	Previous year questions discussion
		2ND	Previous year questions discussion
		3RD	Previous year questions discussion

Signature of faculty   **Signature of HOD**

Principal
Govt. Polytechnic
Jagatsinghpur