Government Polytechnic Panchkula, Sector

Lesson Plan

Name- Ms. Namrata

Discipline- Applied Science

Semester – 1st Sem

Subject –Applied

Duration –15 weeks (2023-24)

Work load (per week)-: lectures-04

Week	Theory			
	Lect. day	*Topic*		
1st	*1st*	**Unit-1** *Complex Numbers: definition of complex number, real and imaginary parts of a complex number,*		
	2nd	*real and imaginary parts of a complex number,,*		
	3rd	*Polar and Cartesian Form and their inter conversion, Conjugate of a complex*		
	4th	*Logarithms and its basic properties*		
2nd	*1st*	*Logarithms and its basic properties*		
	2nd	**Revsion unit-1**		
	3rd	**Unit-2** *Meaning of npr&ncr (mathematical expression*		
	4th	*Binomial theorem (without proof) for positive integral index*		
3rd	*1st*	*first binomial approximation with application to engineering problems.*		
	2nd	*Determinants and Matrices – Evaluation of determinants (upto 2ndorder), solution of equations (upto 2 unknowns) by Crammer's rule,*		
	3rd	*Determinants and Matrices – Evaluation of determinants (upto 2ndorder), solution of equations (upto 2 unknowns) by Crammer's rule,*		*,*
	4th	*Determinants and Matrices – Evaluation of determinants (upto 2ndorder), solution of*		

		equations (upto 2 unknowns) by Crammer's rule,		
3rd	1st	*definition of Matrices and its types, addition, subtraction and multiplication of matrices (upto 2nd order).*		
	2nd	*definition of Matrices and its types, addition, subtraction and multiplication of matrices (upto 2nd order).*		
	3rd	**Revision Unit- 2**		
	4th	**Revision Unit- 2**		
4th	1st	**Unit-3** *Concept of angle, measurement of angle in degrees, grades, radians and their conversions.*		
	2nd	**Unit-3** *Concept of angle, measurement of angle in degrees, grades, radians and their conversions.*		
	3rd	*T-Ratios of Allied angles (without proof), Sum, Difference formulae and their applications (without proof). Product formulae (Transformation of product to sum, difference and vice versa*		
	4th	*T-Ratios of Allied angles (without proof), Sum, Difference formulae and their applications (without proof). Product formulae (Transformation of product to sum, difference and vice versa*		
5th	1st	*Applications of Trigonometric terms in engineering problems such as to find an angle of elevation, height, distance etc.*		**UNIT V** **Geometry of Circle and Software** **Circle Introduction**
	2nd	*Applications of Trigonometric terms in engineering problems such as to find an angle of elevation, height, distance etc.*		*General equation of a circle and its characteristics. To find the equation of a circle, given:*
	3rd	**Revision Unit-3**		*Centre and radius*
	4th	**Revision Unit-3**		**T**hree points lying on it
6th	1st	**UNIT IV** **Co-ordinate Geometry Introduction**		*Coordinates of end points of a diameter*
	2nd	*Cartesian and Polarco-ordinates (two dimensional), Distance between two points, mid-point, centroidof vertices*		**MATLAB Or SciLab software Introduction**

		of a triangle.		
	3rd	*Cartesian and Polar co-ordinates (two dimensional), Distance between two points, mid-* *point, centroid of vertices* *of a triangle.*		*Theoretical Introduction, MATLAB or Scilab as Simple Calculator*
	4th	*Slope of a line, equation of straight line in various standards forms (without proof);*		*(Addition and subtraction of values – Trigonometric and Inverse Trigonometric functions)*
7th	1st	*Slope of a line, equation of straight line in various standards forms (without proof);*		*General Practice*
	2nd	*(slope intercept form, intercept form, one-point form, two-point form, symmetric form,*		*Revision Unit-4*
	3rd	*form), intersection of two straight lines, concurrency of lines, angle between straight lines, parallel and perpendicular lines,*		*Revision Unit-4*
	4th	*perpendicular distance formula, conversion of general form of equation to the various forms.*		*Revision Unit-4*

8th	1st	**Revision- Unit-4**
		Revision- Unit-4
	2nd	
	3rd	**Revision- Unit-4**
	4th	**Revision- Unit-4**
9th	1st	**UNIT V**
		Geometry of Circle and Software
	2nd	**Circle Introduction**
	3rd	**UNIT V**
		Geometry of Circle and Software
		Circle Introduction
	4th	**UNIT V**
		Geometry of Circle and Software
		Circle Introduction
10th	1st	*General equation of a circle and its characteristics. To find the equation of a circle, given:*
	2nd	
		General equation of a circle and its characteristics. To find the equation of a circle, given:
	3rd	*Centre and radius*
	4th	*Three points lying on it*
11th	1st	*Coordinates of end points of a diameter*
	2nd	
		Centre and radius
	3rd	*Three points lying on it*
	4th	*Coordinates of end points of a diameter*

12th	1st	**MATLAB Or SciLab software Introduction**			
	2nd	**MATLAB Or SciLab software Introduction**			
	3rd	**MATLAB Or SciLab software Introduction**			
	4th	**MATLAB Or SciLab software Introduction**			
13th	1st	*Theoretical Introduction, MATLAB or Scilab as Simple Calculator*			
	2nd	*Theoretical Introduction, MATLAB or Scilab as Simple Calculator*			
	3rd	*(Addition and subtraction of values –Trigonometric and Inverse Trigonometric functions*			
	4th	*(Addition and subtraction of values –Trigonometric and Inverse Trigonometric functions*			
14th	1st	*Revision Unit-4*			
	2nd	*Revision Unit-4*			
	3rd	*Revision Unit-4*			
	4th	*Revision*			
15th	1st	*Revision*			
	2nd	*Revision*			
	3rd	*Revision*			

	4th	Revision	
16th	1st	Revision	
	2nd	Revision	
	3rd	Revision	
	4th	Revision	