

Government Polytechnic Panchkula, Sector

Lesson Plan

Name- Ms. Saranjeet Kuar

Discipline- Applied Science

Semester – 1st Sem

Subject –Applied

Duration –16 weeks (2022-23)

Work load (per week):- lectures-04

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

		equations (upto 2 unknowns) by Crammer's rule,		
3 rd	1 st	definition of Matrices and its types, addition, subtraction and multiplication of matrices (upto 2nd order).		
	2 nd	definition of Matrices and its types, addition, subtraction and multiplication of matrices (upto 2nd order).		
	3 rd	Revision Unit- 2		
	4 th	Revision Unit- 2		
4 th	1 st	Unit-3 Concept of angle, measurement of angle in degrees, grades, radians and their conversions.		
	2 nd	Unit-3 Concept of angle, measurement of angle in degrees, grades, radians and their conversions.		
	3 rd	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		
	4 th	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		
5 th	1 st	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
	2 nd	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:
	3 rd	Revision Unit-3		Centre and radius
	4 th	Revision Unit-3		Three points lying on it
6 th	1 st	UNIT IV Co-ordinate Geometry Introduction		Coordinates of end points of a diameter
	2 nd	Cartesian and Polar co-ordinates (two dimensional), Distance between two points, mid-point, centroid of vertices		MATLAB Or SciLab software Introduction

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

8th

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

9th10th11th

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

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