

Lesson Plan

Name of Faculty : Monika
 Discipline : Applied Science
 Semester : 1st
 Subject : Applied Math-1
 Lesson Plan Duration: 16 weeks
 Work load : 4 hours/week

Week	Lect Day	Theory
1 st	1	Complex Number : definition of complex number, real and imaginary parts of a complex number
	2	Polar and Cartesian form
	3	Conversion of polar and Cartesian form
	4	Conjugate of a complex number, Modulus of complex number
2 nd	5	Addition of complex number, Subtraction of complex number
	6	Multiplication of complex number, Division of complex number.
	7	Logarithms and its basic properties.
	8	Logarithms and its basic properties
3 rd	9	Meaning of ${}^n P_r$ & ${}^n C_r$
	10	Value of ${}^n P_r$ & ${}^n C_r$ and simple problems
	11	Binomial theorem (without proof) for positive integral index
	12	Binomial theorem for any index
4 th	13	Binomial theorem for any index
	14	Binomial Approximation
	15	Class test
	16	Assignment
5 th	17	Discussion about assignment
	18	Solution of problems.
	19	Sessional test
	20	Analysis of sessional test
6 th	21	PTM
	22	Determinants and Matrices Evaluation of determinants (upto 2 nd order)
	23	Solution of equations (upto 2 unknowns) by Crammer's rule
	24	Definition of matrices and its types
7 th	25	Addition of matrix
	26	Subtraction of matrices
	27	Multiplication of matrices
	28	Trigonometry : concept of angle, measurement of angle in degrees, grades, radians and their conversions
	29	T- Ratios of Allied angles (without proof)
	30	Concept of sum and difference formulae

8 th	31	Problems based on sum and difference formulae
	32	Product formulae (Transformation of product to sum, difference and vice versa)
9 th	33	Problems based on Product formulae
	34	Applications of Trigonometric terms in engineering problems such as to Find an angle of elevation, height, distance etc.
	35	Class test
	36	Assignment
10 th	37	Discussion about assignment
	38	Solution of problems.
	39	Sessional test
	40	Analysis of sessional test
11 th	41	PTM
	42	Cartesian and Polar co-ordinates ,Distance between two points.
	43	Midpoint Formulae
	44	Centroid of a triangle.
12 th	45	Straight line : Slope of a line
	46	Equation of straight line in various standards forms : Slope intercept form and intercept form
	47	One-point form, two point form, Symmetric form, normal form and general form
	48	Intersection of two straight lines and concurrency of lines, angle between Straight lines.
13 th	49	Parallel and perpendicular lines, perpendicular distance formula.
	50	Conversion of general form of equation to the various forms.
	51	General equation of a circle and its characteristics
	52	To find the equation of a circle, Given- Centre and radius
14 th	53	To find the equation of a circle, Given- three points lying on it, Coordinates of end points of a diameter
	54	MATLAB or SciLab software – Theoretical Introduction
	55	MATLAB or Scilab a Simple Calculator (Addition and subtraction of values – Trigonometric and Inverse Trigonometric functions)
	56	General Practice
15 th	57	Class test
	58	Assignment
	59	Discussion about assignment
	60	Solution of problems.
16 th	61	Sessional test
	62	Analysis of sessional test
	63	PTM
	64	Practice of sample papers.