Lesson Plan

Applied Mathematics 1

Week	Theory	
	Lecture Day	**Topic**
I	**1**	Introduction to syllabus and evaluation scheme
	2	**Complex Numbers** Definition of Complex Number, Real and Imaginary Parts of Complex Numbers
	3	Polar and Cartesian form and their interconversion
	4	Conjugate of Complex Number, Modulus and Amplitude
II	**1**	Addition Subtraction of Complex Numbers
	2	Multiplication and Division
	3	Revision of Complex Numbers
	4	**Logarithm** Logrithm and their basic property
III	**1**	Logrithm and their basic property
	2	Revision of Logarithm
	3	**Permutation and Combination** Meaning of ${}^{n}P_{r}$ and ${}^{n}C_{r}$
	4	Examples basis on ${}^{n}P_{r}$ and ${}^{n}C_{r}$
IV	**1**	**Binomial Theorem** Binomial theorem for positive integral index without proof
	2	Expansion and General form of Binomial Theorem
	3	Binomial theorem for any index without proof expansion upto three terms
	4	Binomial theorem for any index without proof expansion upto three terms
V	**1**	First Binomial Approximation with application engineering problem
	2	Revision of Binomial Theorem
	3	**Determinant and Matrices** Evaluation of Determinants (upto second order)
	4	Solution of Equation upto 2 unknown by Cramer's rule
VI	**1**	First Sessional Test(Tentative)
	2	First Sessional Test(Tentative)
	3	First Sessional Test(Tentative)
	4	Definition of Matrices and its types
VII	**1**	Addition and Subtraction of Matrices (upto second order)
	2	Multiplication of Matrices (upto second order)
	3	Revision of Determinants and Matrices
	4	**Trignometry** Concept of angle ,Measurement of angle in degree , grades, radians
VIII	**1**	Interconversion of Degree ,grade ,and Radian
	2	T-ratios of Allied Angles(without proof)
	3	Sum,Difference formulae and their applications(without proof)
	4	Product Formulae(Transformation of Product to Sum,Difference and vice versa)
IX	**1**	Revision of Trignometry sums
	2	Application of Trignometric terms in Engineering problem such as to find an angle of elevation,Height ,Distance etc.,
	3	Application of Trignometric terms in Engineering problem such as to find an angle of elevation,Height ,Distance etc.,
	4	Revision of Heights and Distance Sums
X	**1**	**Co ordinate Geometry** Distance between two points
	2	Mid Point Formulae ,Centroid of vertices of a triangle

	3	Slope of line
	4	Equation of straight line in various standard forms(without proof)
XI	**1**	Second Sessional Test(Tentative)
	2	Second Sessional Test(Tentative)
	3	Second Sessional Test(Tentative)
	4	Slope intercept form , intercept form , one point form
XII	**1**	Two point form ,Symmetric form ,Normal form and General form of a straight line
	2	Intersection of two straight lines
	3	Concurrency of lines, Angle between two straight lines
	4	Parallel and Perpendicular lines, Perpendicular distance formula
XIII	**1**	Conversion of general form of equation to various forms
	2	Revision of Straight lines
	3	**Geometry of Circles and softwares** Introduction to circles :- General equation of circle and its characteristics
	4	To find equation of circle given centre and radius
XIV	**1**	To find equation of circle given three points lying on it.
	2	To find equation of circle given coordinates of end points of a diameter.
	3	**MAT LAB or SciLab software** Theoretical introduction of MAT LAB or SciLab
	4	Simple calculator(Addition and subtraction of value – Trignometry and inverse Trignometry function)/General Practice
XV	**1**	Simple calculator(Addition and subtraction of value – Trignometry and inverse Trignometry function)/General Practice
	2	Third Sessional Test(Tentative)
	3	Third Sessional Test(Tentative)
	4	Third Sessional Test(Tentative)
XVI	**1**	Revision of Syllabus
	2	Revision of Syllabus
	3	Discussion of Assignments
	4	Discussion of Previous Papers