Mathematics (1-A)

Subject: Mathematics (1-A)								
			Assessment					
Practical	Exercises	Lecture	Final Exam	Mid Term	Assignment	Attendance	Quizzes	Practical Exam
0	2	2	75%	10%	5%	5%	5%	0%

Content :

Algebra :

Mathematical Induction - **Partial Fractions** [Polynomials - Resolution of rational functions into partial fractions - Methods for determining coefficients]

Finite Series [Summation of series - The difference method]

Binomial Expansion [Binomial expansion for negative and fractional indices - Determination of a binomial function from its expansion].

Matrices [Matrix Algebra - Products by partitioning - Determinants - Inverse of a matrix - Linear dependence of vectors - The rank of a matrix - System of linear equations - Eigenvalues and eigenvectors - Reduction of a matrix to Diagonal canonical form - Quadratic form.

Theory of Equations: Some Elementary Properties - Equations with given Roots - Horner's Method of Reducing an Algebraic Equation - Equations with Integer Coefficients - Equation reduced to quadratic equation - Binomial Equations - De Moiver's Theorem - Cubic Equations - Quartic Equations - Reciprocal Equations –