

Group-1

BUSINESS MATHEMATICS

(Paper Code-1114)

Paper-2 Max. Marks 75

OBJECTIVES

The objective of the course is to enable the students to have such minimum knowledge of Mathematics as is applicable to business and economics situation.

COURSE INPUT

<u>Unit-I</u>	Calculus (Problems and Theorems involving ignometical ratios are not to be done) Differentiation: Partial derivatives up to second order; Homogeneity of functions and Euler's theorem;
	Maxima and Minima; Cases of one variable involving second or higher order derivatives; logarithm's
<u>Unit-II</u>	Matrices and Determinants: Definition of a matrix; Types of matrices; Algebra of matrices; Properties of determinants; calculation of values of determinants upto third order; ad joint of matrix, elementary row or column operations; solution of a system of linear equations having unique solution and involving not more than three variables.
<u>Unit-III</u>	Linear Programming- Formulation of LPP: Graphical method of solution: Problems relating to two variables including the case of mixed constraints; cases having no solution, multiple solution, Unbounded solution and Redundant constraints. Transportation problem, Ratio & Proportion.
<u>Unit-IV</u>	Compound Interest and Annuities: Certain different types of interest rates; Concept of present value and amount of a sum; Types of annuities; Present value and amount of an annuity, including the case of continuous compounding; Valuation of simple loans and debentures; Problems relating to sinking funds.
<u>Unit-V</u>	Averages, Percentages, Commission Brokerage, Profit and Loss.