

B. Com. Semester I

Business Mathematics I - Syllabus

Unit	Title	Details of Topic
Unit I	Calculus and Differentiation	Calculus; Partial Derivatives upto second order; Homogeneity of functions and Euler's Theorem; Total Differentials; Differentiation of implicit function with the help of total differentials, Maxima and Minima; cases of one variable involving second or higher order derivatives; Cases of two variables involving not more than one constraint
Unit II	Integration	Integration as anti derivative process; Standard forms; Methods of Integration- by substitution, by parts, by use of partial functions; Definite integration Finding areas in simple cases; consumer's and producer's surplus; Nature of Commodities Learning curve; Leontiff Input-Output Model
Unit III	Matrices and Determinants	Definition of a matrix; types of matrices; Algebra of matrices Properties of determinants; calculations of values of determinants upto third order; Adjoint of a matrix, elementary row and column operations; solution of a system of linear equations having unique solution and involving not more than three variables

Books Recommended:

1. Allel R.G.a: Basic Mathematics: Macmi/lan, New Delhi.
2. Dowling, E.T. Mathematics for Economics: Schaum Series, McGraw Hill, London.
3. Locmba, Paul: Linear Programming: Tata McGraw Hill, New Delhi.
4. Vohra, N.D.: Quantitative Techniques in Management: Tata McGraw Hill, New Delhi.
5. Soni R.S.: Business Mathematics: Pitamber Publishing House, Delhi