

VEER NARMAD SOUTH GUJARAT UNIVERSITY
B.COM (Hons) SEMESTER - I
Course Code - CE 120 C
BUSINESS MATHEMATICS - I
(With Effect From Academic Year 2011-2012)

- UNIT I: Calculus (Problems and theorems involving trigonometrically ratios are not to be done.)
Differentiation : Partial derivations up to second order : Homogeneity of functions and Euler's theorem; Total differentials 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. (25%)
- UNIT II: Integration: Integration as anti-derivative process; Standard forms; Methods of integration-by substitution, by parts and by use of partial functions; Definite integration; Finding areas in simple cases; Consumers and producers surplus; Nature of Commodities Learning Curve; Leontiff Input-Output Model. (25%)
- UNIT III Matrices and Determinants: Definition of a matrix; Types of matrices; Algebra of matrices; Properties of determinants; Calculation of values of determinants upto third order; Adjoint of a matrix, elementary row or column operations; Finding inverse of a matrix through adjoint and elementary row or column operations; Solution of a system of linear equations having unique solution and involving not more than three variables. (50%)

Suggested Readings:

1. Allem R.G.D.: Basic Mathematics; Macmillan, New Delhi.
2. Dowling.E.T.: Mathematics for Economics; Schaum Series, McGraw Hill London.
3. Soni, R.S.: Business Mathemtics; Pitamber Publishing House.
4. Kapoor, V.K.; Business Mathematics; Sultan Chand & Sons, Delhi.
5. Holden: Mathematics for Business and Economics; Macmillan India, New Delhi.

