

SARDAR PATEL UNIVERSITY
Programme: BCOM
Semester: I
Syllabus with effect from: June 2011

Paper Code: UB01CCOM05	Total Credit: 3
Title Of Paper: Business Mathematics - I	

Unit	Description in detail	Weighting (%)
1	<p>Determinant Definition of determinants, Basic properties of determinants (without proof), Solution of linear equations in two and three variables using Cramer's formula</p> <p>Set Theory Sets, subsets, equality of two sets, null set, universal set, Complement of a set, union and intersection of sets, Difference of two sets, venn diagram, De Morgan laws, Cartesian product of two sets</p>	25 %
2	<p>Matrix Definition of a matrix, types of matrices-Equality, addition, subtraction of matrices, scalar multiplication of two matrices, Multiplication of two matrices, Transpose of a matrix, orthogonal matrix, adjoint of a matrix, inverse of a matrix, Solution of a linear equations in two and three variables using inverse matrix</p>	25 %
3	<p>Limits(without involving trigonometric functions) Limits of a function, Limits of sum, product and quotient of two functions (without proof) and their uses in evaluating limits</p> $\lim_{x \rightarrow 0} \frac{a^x - 1}{x}, \quad \lim_{n \rightarrow \infty} \left(1 + \frac{1}{n}\right)^n, \quad \lim_{x \rightarrow a} \frac{x^n - a^n}{x - a}$	25 %
4	<p>Mathematics in finance Compound interest, nominal and effective rates of interest, continuous compounding, Concept of present value and amount of a sum, Annuity (only for a fixed period of time), present value of annuity, sinking funds (with equal payments and equal time intervals)</p>	25 %

Basic Text & Reference Books

- Allen R.G.D.: Basic Mathematics, Macmillan, New Delhi.
- Kapoor, V.K.: Business Mathematics, Sultan Chand and sons, New Delhi.
- Loomba, Paul: Linear Programming, Tata Mc Graw Hill, New York.
- Sharma J.K.: Mathematics for Management and computer application, Galgotia Publications Pvt. Ltd, New Delhi.
- Soni, R.S.: Business Mathematics, Pitamber publishing House.
- Vohra N.D.: Quantitative Techniques in Management, Tata McGraw Hill, New Delhi.

