

SARDAR PATEL UNIVERSITY
Programme & Subject: BBA (Information Technology Management)
(3 Years)
Semester: I
Syllabus with effect from: JUNE 2018

Paper Code: UM01DBBI22	Total Credits: 3
Title Of Paper: Business Mathematics	

Unit	Description in Detail	Weightage (%)
1	<p>Set Theory and Matrix</p> <p>Set Theory Concept of number system(N, Z, Q, R), 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 and Distributive laws (examples only)</p> <p>Matrix Types of matrices- Row, column, Square, null, Identity, Diagonal and scalar matrix. Transpose of a matrix. Examples of Addition, Subtraction and multiplication of matrices.</p>	25%
2	<p>Permutations and Combinations Meaning, Fundamental principle of counting, Theorem based (without proof) on permutation and combination, Permutations of things not all different, Permutations when repetition is allowed, Circular permutations, Examples of permutation and combination</p>	25%
3	<p>Derivative and its applications</p> <p>Derivatives (10%) Derivatives of explicit functions, Rules of differentiation (without proof) Examples based on addition, subtraction, multiplication and division rule Second order derivatives.</p> <p>Applications of Derivative (15%) Concept of Maxima and minima of a function, price elasticity of demand and supply, Equilibrium price and its examples based on economic theory (demand, supply, revenue, cost and Profit function).</p>	25%
4	<p>Mathematics in finance Simple and Compound interest, nominal and effective rates of interest, Concept of present value and amount of a sum, Annuity (only for a fixed period of time), Types of annuity-Future and present value of annuity, Sinking funds (with equal payments and equal time intervals)</p>	25%

Basic Text & Reference Books:-

- Business Mathematics, V.K. Kapoor: Sultan Chand and sons, New Delhi.
- Business Mathematics, Allen R.G.D Macmillan India.
- Business Mathematics, Allen R.G.D Pitamber Publication house.
- Discrete Mathematics, S. Lipschutz/M. L. Lipson Tata McGraw-Hill Publication