

SARDAR PATEL UNIVERSITY
Programme: BBA (GENERAL)
Semester: I
Syllabus with effect from: JUNE 2019

Paper Code: UM01DBBA52	Total Credit:3
Title of paper: BUSINESS MATHEMATICS – I	

UNIT		WEIGHTAGE
1	<p>Set Theory & Determinants:</p> <p>-Set Theory: Sets, Subsets, equality of two sets, null set, universal set, power set, complement of a set, union and intersection of sets, difference of two sets. Venn diagram (Concept only), Laws of algebra of sets,</p> <p>De' Morgan laws and Cartesian Product of two sets.</p> <p>-Determinants : Meaning, Determinants and their basic properties of determinant(Without Proof, without examples), Cramer's Method(For two equations)</p>	25 %
2	<p>Matrix:</p> <p>Types of matrices: Square, null, identity, transpose of Matrices, Symmetric, skew symmetric, Singular, nonsingular, inverse, Ad joint of a matrix.</p> <p>Matrices- scalar multiplication, Addition, Subtraction, Multiplication.</p> <p>Solution of a system of two and three linear equations using matrix.</p>	25 %
3	<p>Mathematics in Finance:</p> <p>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), present value of annuity, sinking funds (with equal payments and equal time intervals)</p>	25 %
4	<p>Interpolation And Extrapolation:</p> <p>Meaning of Interpolation and Extrapolation, Assumptions , Importance and uses of Interpolation and Extrapolation , Operators Δ , E and D (without proof), Methods of Interpolation and Extrapolation;</p> <p>1. Newton's method 2. Binomial expansion method</p> <p>3. Lagrange's method, Simple examples on this methods.</p>	25 %

Reference Books:

- (1) Sancheti & Kapoor: Statistics: Theory, Methods and Applications, Sultan Chand & sons, New Delhi
- (2) Kapoor, V.K.: Business Mathematics, Sultan Chand and sons, New Delhi.
- (3) Soni, R.S.: Business Mathematics, Pitamber publishing House.
- (4) Vohra N.D.: Quantitative Techniques in Management, Tata McGraw Hill, New Delhi.