

B.COM. SEMESTER – 1

6 **DSE – 1** **Business Mathematic – 1**

Name of the Course: **Business Mathematic - 1**
Course credit: **03**
Teaching Hours: **45 (Hours)**
Total marks: **100**

Course Outcomes

The course aims to provide basic knowledge to the students about the fundamental concepts of business mathematics & its application in business

Unit	Content	No. of Lectures
1	SET THEORY: <ul style="list-style-type: none">- Concept of a Set- Method of Representing Sets- Types of Sets- Some important Number Sets- Operation of Sets<ol style="list-style-type: none">1. Intersection of Sets2. Union of Sets (with Proof)- Distributive Laws<ol style="list-style-type: none">1. Union over Intersection2. Intersection over Union (With Proof)- Complimentary of Set- De- Morgan's Laws (With Proof)- Difference of Two Sets- Cartesian product- Examples	10
2	PERMUTATION & COMBINATION: <ul style="list-style-type: none">- Permutations (Meaning, formula)- Permutations of different things- Permutations of Similar things- Restricted Permutation- Combinations (Meaning formula)- Combinations of things taken some or all at time- Some Restricted Combinations- Examples	12
3	BINOMIAL THEOREM: <ul style="list-style-type: none">- Introduction- Binomial Theorem (Without Proof)- Position of Terms- Characteristics of Binomial theorem- Binomial Coefficient- Examples	10



4	INTERPOLATION & EXTRAPOLATION: <ul style="list-style-type: none"> - Introduction and Uses - Newton's Forward Method - Newton's Backward Method - Binomial Expansion Method - Lagrange's Method - Examples 	13
Total Lectures		45

Important instructions for paper setter -

Set University examination question paper for regular and external candidates as per the following instruction:

UNIVERSITY EXAMINATION		
(Que. No. 1 to 4 are compulsory for regular students and external candidates)		
Sr. No.	Particulars	Marks
1	PRACTICAL QUE - 1 (From Unit 1) (OR) PRACTICAL QUE - 1 (From Unit 1)	20
2	PRACTICAL QUE - 2 (From Unit 2) (OR) PRACTICAL QUE - 2 (From Unit 2)	20
3	PRACTICAL QUE - 3 (From Unit 3) (OR) PRACTICAL QUE - 3 (From Unit 3)	15
4	PRACTICAL QUE - 4 (From Unit 4) (OR) PRACTICAL QUE - 4 (From Unit 4)	15
Total Marks for Regular Students		70
ONLY FOR EXTERNAL CANDIDATES		
5	QUESTION - 5 (From Unit 1 to 4) [Q.5 (A) 15 marks + Q.5 (B) 15 marks] OR QUESTION - 5 (From Unit 1 to 4) [Q.5 (A) 15 marks + Q.5 (B) 15 marks]	30
Total Marks for external candidates		100

Suggested Readings and Reference Books:

1. Business Mathematics By Sancheti & Kapoor
2. Fundamental of Mathematics and Statistics By V.K. Kapoor and S.C. Gupta
3. Numerical Analysis By V. N . Vedmurthi

Note: Latest Editions of the above books may be used.

