Paper 3

FUNDAMENTALS OF BUSINESS MATHEMATICS AND STATISTICS (FBMS)   100 Marks

Module No.	Module Description	Weight
	Section A: Fundamentals of Business Mathematics	**40%**
1	Arithmetic	15%
2	Algebra	20%
3	Calculus - Application in Business	5%
	Section B: Fundamentals of Business Statistics	**60%**
4	Statistical Representation of Data	5%
5	Measures of Central Tendency and Dispersion	15%
6	Correlation and Regression	15%
7	Probability	15%
8	Index Numbers and Time Series	10%

SECTION A: FUNDAMENTALS OF BUSINESS MATHEMATICS

1. Arithmetic
    1.1 Ratios, Variations and Proportions
    1.2 Time Value of Money and Annuity – Simple and Compound Interest
    1.3 Arithmetic Progression and Geometric Progression
    1.4 Time and Distance

2. Algebra
    2.1 Set Theory, including Venn Diagram
    2.2 Indices and Logarithms (Basic Concepts)
    2.3 Permutation and Combinations (Basic Concepts)
    2.4 Quadratic Equations (Basic Concepts)

3. Calculus - Application in Business
    3.1 Concept of Calculus and its Application in Business
    3.2 Revenue and Cost Function
    3.3 Optimisation Techniques (Basic Concepts)

SECTION B: FUNDAMENTALS OF BUSINESS STATISTICS

4. Statistical Representation of Data

    4.1 Diagrammatic Representation of Data

    4.2 Frequency Distribution

    4.3 Graphical Representation of Frequency Distribution – Histogram, Frequency Polygon Curve, Ogive, Pie-chart

5. Measures of Central Tendency and Dispersion

    5.1 Mean, Median, Mode, Mean Deviation

    5.2 Range, Quartiles and Quartile Deviation

    5.3 Standard Deviation

    5.4 Co-efficient of Variation

    5.5 Karl Pearson and Bowley's Co-efficient of Skewness

6. Correlation and Regression

    6.1 Scatter Diagram

    6.2 Karl Pearson's Co-efficient of Correlation

    6.3 Regression Analysis

7. Probability

    7.1 Concepts and Terminologies

    7.2 Primary applications of Probability Theorems

8. Index Numbers and Time Series

    8.1 Uses of Index Numbers, Methods of Construction of Index Number

    8.2 Components of Time Series and Calculation of Trend by Moving Average Method