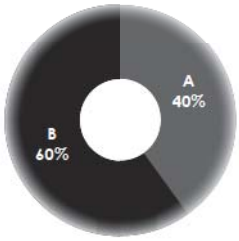
Syllabus - 2016

PAPER 4: FUNDAMENTALS OF BUSINESS MATHEMATICS AND STATISTICS (FBMS)
Syllabus Structure

A	Fundamentals of Business Mathematics	40%
B	Fundamentals of Business Statistics	60%



ASSESSMENT STRATEGY
There will be written examination paper of three hours.

OBJECTIVES
To gain understanding on the fundamental concepts of mathematics and statistics and its application in business decision-making

Learning Aims
The syllabus aims to test the student's ability to:
- Understand the basic concepts of basic mathematics and statistics
- Identify reasonableness in the calculation
- Apply the basic concepts as an effective quantitative tool
- Explain and apply mathematical techniques
- Demonstrate to explain the relevance and use of statistical tools for analysis and forecasting

Skill sets required

Level A: Requiring the skill levels of knowledge and comprehension

Section A: Fundamentals of Business Mathematics	
1. Arithmetic	**20%**
2. Algebra	**20%**
Section B: Fundamentals of Business Statistics	
3. Statistical representation of Data	**10%**
4. Measures of Central Tendency and Dispersion	**30%**
5. Correlation and Regression	**10%**
6. Probability	**10%**

SECTION A: FUNDAMENTALS OF BUSINESS MATHEMATICS [40 MARKS]

1. **Arithmetic**
   - (a) Ratios, Variations and Proportions
   - (b) Simple and Compound interest
   - (c) Arithmetic Progression and Geometric Progression

2. **Algebra**
   - (a) Set Theory
   - (b) Indices and Logarithms (basic concepts)
   - (c) Permutation and Combinations (basic concepts)
   - (d) Quadratic Equations (basic concepts)

SECTION B: FUNDAMENTALS OF BUSINESS STATISTICS [60 MARKS]

3. Statistical Representation of Data

(a) Diagrammatic representation of data
(b) Frequency distribution
(c) Graphical representation of Frequency Distribution – Histogram, Frequency Polygon Curve, Ogive, Pie-chart

4. Measures of Central Tendency and Dispersion

(a) Mean, Median, Mode, Mean Deviation
(b) Range, Quartiles and Quartile Deviation
(c) Standard Deviation
(d) Co-efficient of Variation
(e) Karl Pearson and Bowley's Coefficient of Skewness

5. Correlation and Regression

(a) Scatter diagram
(b) Karl Pearson's Coefficient of Correlation
(c) Regression lines, Regression equations, Regression coefficients

6. Probability

(a) Independent and dependent events; Mutually exclusive events
(b) Total and Compound Probability; Baye's theorem; Mathematical Expectation