A–1348

Total Pages : 4 **Roll No. .....**

MS-104

Master of Business Administration (MBA)

Quantitative Techniques in Management

Examination February, 2026

Time : 2:00 Hrs. Max. Marks : 70

Note* :–** This paper is of Seventy (70) marks divided into Two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given therein. ***Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

Section–A

Long Answer Type Questions (2×19=38)

***Note* :–** Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each. Learners are required to answer any *two* (02) questions only.

1. What is business statistics ? Discuss its significance and limitations. Explain how statistical tools assist in solving managerial problems ?

2. Describe measures of dispersion : Range, Mean Deviation and Standard Deviation. For the following data compute Range, Mean Deviation and Standard Deviation :

   Values : 8, 12, 16, 20, 24

3. Define correlation. Explain the difference between rank correlation and Karl Pearson's correlation. Using the data below compute Spearman's Rank Correlation :

A	B
10	15
20	25
30	28
40	35
50	45

4. What is Time Series Analysis ? Explain its components. Also discuss its practical applications in business forecasting with examples.

5. What is Assignment Problem ? Explain its uses. Solve the following simple cost matrix to find the optimal assignment :

	A	B	C
P	9	2	7
Q	6	4	3
R	5	8	1

Section–B

Short Answer Type Questions (4×8=32)

***Note* :–** Section 'B' contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.

1. What is Poisson distribution ? Give a suitable business example.

2. Define probability. What is the difference between classical and empirical probability ?

3. Explain the assignment problem and mention its practical uses.

4. What is a frequency polygon ? How is it constructed ?

5. What is queuing theory ? Explain two situations where queuing theory is applied in business.

6. What is Simplex Method in Linear Programming ? Mention its advantages.

7. What is Kurtosis ? Explain leptokurtic and platykurtic curves.

8. Find the median of the data :

3, 8, 12, 15, 20, 25, 30

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