MP-204/MP-304 (Old)

June - Examination 2026

Master of Business Administration (IInd Year) Examination

Quantitative Techniques

Paper : MP-204/MP-304 (Old)

[*Time: **3** Hours*] [*Maximum Marks: **80***]

Note :- The question paper is divided into three Sections A, B and C. Write answers as per the given instructions in each section.

Section-A **8×2=16**

(Very Short Answer Type Questions)

Note :- Answer **all** questions. As per the nature of the question delimit your answer in one word, one sentence or maximum up to **30** words. Each question carries **2** marks.

1. (i) Write any two limitations of Quantitative Research.
   (ii) Explain the term 'Correlation'.
   (iii) What do you understand by Business Forecasting?
   (iv) Write any two uses of Index Numbers.
   (v) What is Normal Distribution?
   (vi) What do you mean by Statistical Decision Theory?
   (vii) Explain the term 'Game Theory'.
   (viii) What do you mean by Linear Programming?

Section-B **4×8=32**

(Short Answer Type Questions)

Note :- Answer **any four** questions. You have to delimit your each answer maximum up to **200** words. Each question carries **8** marks.

2. Distinguish between positive and negative correlation and briefly discuss the uses of correlation.

3. From the following data, prepare an index number for 2025 taking 2024 as base -

Commodities	Price in 2024 (₹)	Price in 2025 (₹)
A	40	60
B	110	100
C	150	200

4. What is the difference between decision making under uncertainty and risk? Explain the various decision criterion under uncertainty.

5. Define probability and explain the importance of this concept in statistics.

6. Explain the importance and utility of time series analysis.

7. Write the critical note on Game Theory.

8. Discuss the role and limitations of linear programming approach.

9. In a bank, every 15 minutes, one customer arrives for cashing the cheque. The staff in the only payment counter takes 10 minutes for serving a customers on an average.
   (i) Find the average queue length.
   (ii) When the waiting time of a customer is at least 15 minutes, the management will increase one more counter. Find the increase in the arrival rate in order to justify a second counter.

Section-C **2×16=32**

(Long Answer Type Questions)

Note :- Answer **any two** questions. You have to delimit your each answer maximum up to **500** words. Each question carries **16** marks.

10. Describe in brief, some of the important quantitative techniques used in modern business industrial units.

11. Calculate Karl Pearson's Co-efficient of Correlation from the following data -

X	100	110	115	116	120	125	130	135
Y	18	18	17	16	16	15	13	10

12. (i) What are the methods of business forecasting?
   (ii) What are the uses of network in project execution?

13. What is Operation Research? Why it was needed in industry? And also discuss the scope of operation research.
