Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 07

MBA   (Sem.–1)
QUANTITATIVE TECHNIQUES
Subject Code : MB-104
M.Code : 49031

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.**

SECTION-A

1. **Write briefly :**

   a) Annuity

   b) Principles of mathematical induction

   c) Kurtosis

   d) Significance of Index numbers

   e) Seasonal variations

   f) Properties of regression coefficients

   g) Theoretical distributions

   h) Sampling distribution

   i) If payment of Rs 20,000 is made quarterly for 10 years @ 8% p.a., find annuity.

   j) Multiplicative law of probability

SECTION-B

2. Discuss the role of statistics and mathematics in various business decisions, giving examples.

3. Using Binomial theorem, obtain the 6th term in the expansion of $(2x + y)^9$.

4. Find the coefficient of variation for the following data and comment on it :

X	10	18	14	22	17	26	29
Y	5	7	2	8	4	9	11

5. Discuss what is meant by time series analysis. Discuss its various components.

6. Find the correlation coefficient for the following data :

X	10	20	30	40	50	60
Y	105	125	115	145	135	155

7. Write short notes on :

a) Point estimation

b) Internal estimation

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.