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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 6<sup>th</sup> term in the expansion of  $(2x + y)^9$ .
4. Find the coefficient of variation for the following data and comment on it :

<b>X</b>	10	18	14	22	17	26	29
<b>Y</b>	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 :

<b>X</b>	10	20	30	40	50	60
<b>Y</b>	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.**