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BSM-008

**BACHELOR OF BUSINESS
ADMINISTRATION (SERVICES
MANAGEMENT)
(BBASM)**

**Term-End Examination
December, 2025**

**BSM-008 : BASIC QUANTITATIVE
TECHNIQUES**

Time : 2 Hours

Maximum Marks : 50

Note : *Attempt all the questions.*

1. Answer all the questions. Each question carries 1 mark. 1×10=10
- (a) State whether the following statements are true/false :
- (i) In a nominal scale of measurement, the order of categories matters.

(True/False)

- (ii) Measures of central tendency provide information about the spread of data. (True/False)
- (iii) A higher standard deviation indicates greater variability in a dataset. (True/False)
- (iv) The median is less sensitive to extreme values than the mean. (True/False)
- (v) A frequency distribution summarizes the number of times each value occurs in a dataset. (True/False)

(b) Fill in the blanks :

- (i) F-distribution is also known as distribution.
- (ii) The formula for calculating the mean (average) of a dataset is :
Mean =

- (iii) The formula for calculating the mode is based on identifying the value that occurs frequently.
- (iv) A set of one or more outcomes of a random experiment is called as
- (v) The formula for calculating the variance of a dataset is :
Variance =

2. Answer any *five* of the following questions in about **100** words each. Each question carries 2 marks : 2×5=10

- (a) Depreciation
- (b) Nominal
- (c) Z-score
- (d) Random Sample
- (e) Interest Rate
- (f) Volatility
- (g) Arithmetic Mean
- (h) Covariance

3. Answer any *four* of the following questions in about **250** words each. Each question carries 5 marks : 4×5=20

- (a) Define and explain the concept of 'Sampling Error' in the context of a survey.
- (b) Discuss the importance of the mode in describing the central tendency of a dataset.
- (c) What is a Confidence Interval and how is it used in statistical analysis ?
- (d) Explain the concept of 'Hypothesis Testing' in statistical analysis.
- (e) Differentiate between a population parameter and a sample statistic.
- (f) Discuss the role of the Interquartile Range (IQR) in analysing the spread of data.

4. Answer any *one* of the following questions in about **500** words. Each question carries 10 marks : 1×10=10

- (a) Discuss the principles and applications of simple interest, using Mr. A's ₹ 60,000 deposit at a 9% annual rate as an example.
- (b) Elaborate on the key distinctions between a positively skewed distribution and a negatively skewed distribution, emphasizing their respective characteristics and implications in data interpretation.

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