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BSM-008

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

Term-End Examination

June, 2024

BSM-008 : BASIC QUANTITATIVE TECHNIQUES

Time : 2 Hours

Maximum Marks : 50

Note : *All questions are compulsory.*

1. Answer all the questions. Each question carries 1 mark : 1×10=10
 - (a) Statistics does not study characteristics.
 - (b) is the most common instrument of collecting the primary data.
 - (c) State True or False : Minor difference in figures cannot be 'shown easily.
 - (d) The arithmetic mean of 12, 14, 16, 18, 20 is :
 - (i) 15 units

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- (ii) 14 units
 - (iii) 16 unit
 - (iv) 20 units
- (e) The range of the distributions 150, 180, 240, 300, 245, 255, 270, 210, 225 is :
- (i) 120 units
 - (ii) 130 units
 - (iii) 140 units
 - (iv) 150 units
- (f) When a coin is tossed, what is the probability of getting head ?
- (i) 1
 - (ii) $1/4$
 - (iii) $1/2$
 - (iv) 0
- (g) F-Distribution is also known as
- (h) State True or False : There are two methods to calculate depreciation.
- (i) The point where the total revenue is equal to the total cost of production is known as

- (j) In statistics, conducting survey means :
- (i) Collecting information from elements
 - (ii) Making mathematical calculations
 - (iii) Drawing graphs and pictures
 - (iv) None of the above

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

- (a) What are the different types of data ?
- (b) What do you mean by tabulation ?
- (c) What are the various measures of central tendency ?
- (d) What do you understand by standard deviation ?
- (e) What is a random experiment ?
- (f) Define normal distribution.
- (g) What is simple interest ?
- (h) What do you mean by demand forecasting ?

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

- (a) Find the median of the numbers :
33, 86, 68, 32, 80, 48, 70.
- (b) Discuss the characteristics of a normal distribution curve.
- (c) A loan of ₹ 10,000/- has been issued for 6 years. Compute the amount to be repaid to the lender if simple interest is charged @ 5% per year.
- (d) What are the methods of demand forecasting ? Discuss.
- (e) Discuss the role of statistics in business planning.
- (f) What are the different types of frequency distribution ? Discuss the steps involved to construct a frequency table.

4. Answer any *one* question in **500** words :

10×1=10

- (a) Frequency distribution of weights of 2000 students is given in the following table.

Draw a histogram to represent the distribution :

Weights (in lbs)	No. of Students
90—100	500
100—110	700
110—120	300
120—130	400
130—140	100

(b) Calculate the Arithmetic Mean (AM) from the following data by Short-Cut method :

Marks	No. of Students
0—10	4
10—20	10
20—30	18
30—40	20
40—50	24
50—60	14
60—70	6
70—80	4