

**BACHELOR OF BUSINESS ADMINISTRATION  
(SERVICES MANAGEMENT)  
(BBA(SM))**

**Term-End Examination**

**December, 2022**

**BSM-008 : BASIC QUANTITATIVE TECHNIQUES**

*Time : 2 hours*

*Maximum Marks : 50*

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1. Answer ***all*** the questions. Each question carries 1 mark. *10×1=10*

(a) State *True* or *False* :

Statistics do not find application in the field of heterogeneous data.

(b) When an investigator uses the data which have already been collected by others, such data are called

- (i) Secondary data
- (ii) Primary data
- (iii) Collected data
- (iv) Processed data

- (c) A systematic method of presenting statistical data in vertical columns and horizontal rows according to some classification of subject matter is called
- (i) Table
  - (ii) Diagram
  - (iii) Map
  - (iv) Graph
- (d) The mean of 88, 72, 33, 29, 70, 54, 86, 91, 57, 61 is
- (i) 68.2
  - (ii) 67.3
  - (iii) 64.1
  - (iv) 64.8
- (e) The range of the distribution 2, 4, 32, 18, 11, 19 is
- (i) 28
  - (ii) 30
  - (iii) 32
  - (iv) 35
- (f) Two unbiased coins are tossed. What is the probability of getting at most one tail ?
- (i)  $\frac{1}{2}$
  - (ii)  $\frac{1}{3}$
  - (iii)  $\frac{3}{2}$
  - (iv)  $\frac{3}{4}$

- (g) State *True* or *False* :  
Chi-square is used to analyse frequencies.
- (h) A sum becomes six times itself at 20% p.a. simple interest in
- (i) 26 years
  - (ii) 23 years
  - (iii) 25 years
  - (iv) 24 years
- (i) Which of the following is ***not*** true for forecasting ?
- (i) Forecasts are rarely perfect.
  - (ii) The underlying causal system will remain the same in the future.
  - (iii) Forecast for a group of items is more accurate than an individual item.
  - (iv) Short-range forecasts are less accurate than long-range forecasts.
- (j) In a statistical table, the row headings are referred to as
- (i) Captions
  - (ii) Body
  - (iii) Stubs
  - (iv) Source note

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

- (a) What do you mean by Statistics ?
- (b) What is sampling ?
- (c) What are the uses of frequency distribution ?
- (d) What do you mean by dispersion ?
- (e) What do you mean by mutually exclusive events ?
- (f) What are the characteristics of normal distribution ?
- (g) What do you mean by Net Present Value ?
- (h) What is the Delphi method of demand forecasting ?

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

- (a) Discuss the importance of Statistics in business planning.
- (b) What are the characteristics of a good questionnaire ?

- (c) What are the advantages and disadvantages of a median ?
- (d) Five equally capable students are waiting for a summer interview with a company that has announced that it will hire only one of the five by random drawing. The group consisted of Sathvik, Rithvik, Abhi, Uday and Pavan. What is the probability that Sathvik will be the candidate ?
- (e) Discuss some day-to-day situations where normal distribution is applicable.

4. Answer any **one** question in about 500 words :  $1 \times 10 = 10$

- (a) Mr. A has deposited ₹ 6,000 in a savings account. Bank pays interest at a rate of 9% per year. Compute the amount of interest that will be earned over a 5-year period :
- (i) if the interest is simple.
- (ii) if the interest is compounded annually.

- (b) Calculate the median from the following frequency distribution of marks in Economics :

Marks	No. of Students
5	20
10	43
15	75
20	76
25	72
30	45
35	39
40	9
45	8
50	6

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