# B.M.S. COLLEGE FOR WOMEN, AUTONOMOUS <br> BENGALURU - 560004 <br> SEMESTER END EXAMINATION - SEPTEMBER2023 

B.Voc. Retail Management $-4^{\text {th }}$ Semester

## STATISTICS FOR BUSINESS DECISIONS

(NEP Scheme 2021-22 onwards)

## Course Code: BVRM4DSC10

QP Code: 4028
Duration: $21 / 2$ Hours
Max. Marks: 60

## Instructions: 1. Answer all the sections.

2. Write legibly

## SECTION-A

I. Answer any FIVE of the following questions. Each question carries TWO Marks. (5X2=10)
a. Define the term "Statistics".
b. What is sampling?
c. State the empirical relationship between mean, mode and median.
d. Give the meaning of primary data.
e. List out the different scales of measurement
f. Mention the objectives of classification
g. Mean and variance of 100 items are found to be 50 and 144 . What is its coefficient of variation?

## SECTION-B

II. Answer any FOUR of the following question. Each question carries FIVE Marks. (4X5=20)
2. Discuss the uses of statistics.
3. The mean and S.D of two brands of bulbs are given below.

| Particulars | Brand A | Brand B |
| :--- | :--- | :--- |
| Mean | 1000 Hours | 820 Hours |
| S.D | 100 Hours | 65 Hours |

Calculate measures of relative dispersion for the two brands and interpret the results.
4. In a sample study about coffee drinking habits in two towns are as follows:

Town A: Females were 40\%, total coffee drinkers were $45 \%$ and male non-coffee drinkers were $20 \%$
Town B: Males were $55 \%$, male non-coffee drinkers were $30 \%$ and coffee drinkers were $15 \%$.
Represent the above in a tabular form
5. A Contractor employs 3 types of workers; skilled, semi-skilled, and unskilled. To a skilled worker he pays Rs. 500 per hour, to a semi-skilled worker, he pays Rs. 300 per hour and Rs. 100 per hour to unskilled workers. What is the average and weighted wages per hour paid by the contractor, if the number of skilled, semi-skilled and unskilled workers is 20,12 and 4 respectively?
6. Draw a pie diagram for the following data

| Items | Amount of percentage |
| :--- | :---: |
| Food | 12.9 |
| Clothing | 12.5 |
| Education | 27.2 |
| Social service | 16.1 |
| Transport | 15.9 |
| Miscellaneous | 15.4 |

## SECTION-C

III. Answer Any TWO of the following question. Each question carries TWELVE Marks.
7. Calculate Mode using Analysis and Grouping table

| C.I | $0-5$ | $5-10$ | $10-15$ | $15-20$ | $20-25$ | $25-30$ | $30-35$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{F}$ | 1 | 3 | 10 | 6 | 10 | 9 | 1 |

8. Draw less than and more than ogive curve from the following data and locate median

| $\mathbf{C . I}$ | $100-200$ | $200-300$ | $300-400$ | $400-500$ | $500-600$ | $600-700$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{F}$ | 20 | 60 | 80 | 120 | 80 | 60 |

9. Calculate Karl Pearson's co-efficient of skewness from the following

| $\mathbf{X}$ | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{F}$ | 5 | 10 | 15 | 20 | 25 | 8 | 11 |

## SECTION-D

IV. Answer Any ONE of the following questions carries SIX Marks.
10. Draw a blank statistical table and label its parts
11. Graphically represent Histogram using imaginary data

