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DCBD103

Reg. No.

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I Semester B.Com. (B.D.A.) Degree Examination, December/January - 2025/26

COMMERCE

Business Statistics - I

(NEP Scheme 2021-22 onwards Repeaters)

Time : 2½ Hours

Maximum Marks : 60

Instructions to Candidates:

Answer should be written in English only.

SECTION - A

Answer any **FIVE** of the following questions. Each question carries **Two** marks.

(5×2=10)

1. a. Mention the methods of collecting data.
- b. What is cluster sampling?
- c. Define mutually exclusive events.
- d. State the empirical formula to determine "Mode".
- e. What is Range?
- f. If variance =36 and $\bar{x} = 15$ Find co-efficient of variation.
- g. Mention four types of bar diagrams.



SECTION - B

Answer any **FOUR** of the following questions. Each question carries **Five** marks.

(4×5=20)

2. Calculate Median from the given data.

| | | | | | |
|-----------------|-------|-------|-------|-------|-------|
| Marks | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 |
| No. of students | 15 | 18 | 20 | 9 | 6 |

3. Compute Mean deviation and its co-efficient using mean from the following data.

45, 110, 78, 70, 52, 75, 83, 64, 98

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4. Calculate co-efficient of rank correlation between X and Y.

| | | | | | | | |
|----|----|----|----|----|----|----|----|
| x: | 30 | 55 | 20 | 66 | 41 | 28 | 48 |
| y: | 52 | 38 | 74 | 28 | 60 | 72 | 65 |

5. Calculate Mode using following data

| | | | | | | |
|----|-------|-------|-------|-------|-------|-------|
| x: | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 |
| y: | 6 | 10 | 12 | 18 | 11 | 6 |

6. If the Quartile 1 (Q_1) is 40 and Quartile 3 (Q_3) is 82 find

- Quartile deviation.
- Co-efficient of Quartile deviation.

SECTION - C

Answer any **TWO** of the following questions. Each question carries **Twelve** marks.

(2×12=24)

7. Compute Karl Pearson's co-efficient of correlation between X and Y from the following data.

| X | Y |
|----|----|
| 70 | 32 |
| 53 | 56 |
| 27 | 58 |
| 48 | 40 |
| 12 | 48 |
| 34 | 42 |
| 85 | 35 |
| 22 | 52 |
| 51 | 36 |
| 58 | 44 |



8. The scores of two batsmen Sachin and Virat in ten cricket matches is given below :

Sachin : 32 28 47 63 71 39 10 60 96 14

Virat : 19 31 48 53 67 90 10 62 40 80

Find whether batsman Sachin or Virat is more consistent in scoring runs.

9. Calculate Mean, Median and Mode from the following data.

Age : 10 15 20 25 30 35 40 45

No. of Persons : 10 25 40 50 25 17 8 5

SECTION - D

Answer any **ONE** of the following question. The question carries **Six** marks. (1×6=6)

10. Explain different sources of data collection.

11. Draw a pie chart for the following data

| Items | Expense |
|---------------|---------|
| Food | 4000 |
| Rent | 12000 |
| Education | 6000 |
| Entertainment | 2000 |
| Miscellaneous | 1000 |
