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III Semester B.B.A. Degree Examination, January/February - 2025

BUSINESS ADMINISTRATION

Statistics for Business Decision

(CBCS Scheme NEP F+R)



Time : 2½ Hours

Maximum Marks : 60

Instructions to Candidates:

All the answers should be written in English only.

SECTION - A

Answer any Five of the following questions. Each question carries 2 marks.

(5×2=10)

1. a. Define statistics.
- b. What is sampling method of data collection?
- c. If $\bar{X} = 12$, $Z = 13$. Find median.
- d. State any two advantages of standard deviation.
- e. If $b_{xy} = 0.825$, $b_{yx} = 0.84$ calculate 'r'.
- f. State any two differences between correlation and regression.
- g. Give the meaning of the term 'Time Series'.

SECTION - B

Answer any Four of the following questions. Each question carries 5 marks.

(4×5=20)

2. In a sample study about coffee habit in two towns, the following information was received.
Town A : Female 40%, the total coffee drinkers were 45% and male non - coffee drinkers were 20%.

Town B : Male 55%, male non - coffee drinkers were 30% and female coffee drinkers were 15%. Present the data in a Tabular form.

3. Find median from the following

Marks	20	30	40	50	60	70
Students	4	5	7	11	8	7

[P.T.O.]



4. An organisation has two units A & B. An analysis of weekly wages paid to workers gave following results.

Particulars	Unit A	Unit B
No. of wage earners	500	670
Average weekly wages	65	72
Standard deviation	9	9

- i) Which unit pays larger amount as weekly wages.
- ii) in which unit there is greater variability in wage distribution.

5. From the following information

- a) Obtain two regression equations.
- b) Find the value of X when Y = 88.

particulars	X	Y
Mean	47	96
Variance	64	81
Correlation coefficient	0.36	

6. Calculate the trend values by the method of least squares from the data given below.

year :	2017	2018	2019	2020	2021	2022	2023
sales (Rs. in lakhs)	80	90	92	83	94	99	92

SECTION - C

Answer any Two questions of the following. Each question carries 12 marks.

(2×12=24)

7. Calculate mean and median from the following. Using empirical relationship, calculate mode.

Marks. (below)	10	20	30	40	50	60	70	80
No. of students	25	40	60	75	95	125	190	240



8. Calculate Karl Pearson's coefficient of Skewness from the following data :

Wages (Rs.)	100-200	200-300	300-400	400-500	500-600	600-700	700-800
No. of workers	4	10	18	12	3	2	1

9. The following data relates to X and Y variable. Find the coefficient of correlation. Comment on the result through the probable error.

X :	6	8	12	15	18	20	24	28	31
Y :	10	12	15	15	18	25	22	26	28

SECTION - D

Answer any One of the following questions which carries 6 marks. (1×6=6)

- 10. Prepare a Blank table and mention its parts.
- 11. Prepare (Draw) the sub-divided bar diagram with imaginary numbers.