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III Semester B.B.A. Degree Examination, March/April - 2024

**BUSINESS ADMINISTRATION**

**Statistics for Business Decisions**

**(NEP Scheme F+R)**

**Paper : 3.3**

**Time : 2½ Hours**

**Maximum Marks : 60**

**Instructions to Candidates:**

All the answers should be in English only.

**SECTION - A**

Answer any **Five** of the following questions. Each question carries **2** marks. **(5×2=10)**

1. a. Mention any two functions of statistics.
- b. What is sampling method of data collection?
- c. What is tabulation.
- d. State the components of time series.
- e. What is Regression?
- f. State the formula for calculating Karl Pearson's co-efficient of skewness.
- g. Mention any two limitations of median.

**SECTION - B**

Answer any **Four** of the following questions. Each question carries **5** marks. **(4×5=20)**

2. From the following marks of students prepare a frequency table with 10 class interval (Exclusive series)

Marks of students

48	27	38	13	10	05	49	35	26	01
25	33	47	09	19	46	22	17	35	20
03	08	31	45	25	19	40	19	45	18
20	41	39	15	09	40	15	37	29	30
47	16	48	30	40	10	25	20	34	47

3. Calculate SD from the following data

Value :	10	20	30	40	50	60	70
Frequency :	1	5	12	22	17	9	4

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

Year	2016	2017	2018	2019	2020	2021	2022	2023
Sales in crores (Rs.)	76	80	130	144	138	120	174	190

**[P.T.O.]**



5. Find Median from the following data

Value :	5	15	25	35	45	55
Frequency :	12	24	36	20	16	8

6. Obtain two regression equations from the following :

	X	Y
Mean	20	25
Variance	4	9
Correlation coefficient	0.75	

### SECTION - C

Answer any **Two** of the following questions. Each question carries 12 marks.  $(2 \times 12 = 24)$

7. The following data relates to marks of students. Calculate mean, median and mode.

Marks :	20-30	30-40	40-50	50-60	60-70	70-80
No. of students :	14	24	38	20	10	4

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

Wages in '000 Rs.	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90
No. of Persons :	12	18	35	42	50	45	20	8

9. Calculate correlation coefficient between sales and advertisement expenditure from the following data.

Sales in Lakhs (Rs.)	65	66	67	68	69	70	71	72	73
Advt. Exp in Thousands (Rs.)	66	67	64	67	71	69	70	68	70

### SECTION - D

Answer any **One** of the following questions which carries 6 marks.

$(1 \times 6 = 6)$

10. Prepare a blank table mentioning the parts of the table.
11. Draw a histogram from the following data and locate mode graphically.

CI :	0-50	50-100	100-150	150-200	200-250
Frequency :	6	8	10	4	3