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II Semester B.B.A. Degree Examination, September - 2021

MANAGEMENT BUSINESS ADMINISTRATION

Quantitative Methods for Business - II

(CBCS Semester Scheme)

Time : 3 Hours

Maximum Marks : 70

*Instructions to Candidates:*

Answers should be written in English only

## SECTION - A

I. Answer any FIVE questions. Each question carries 2 Marks. (5×2=10)

1. a) Define Statistics.
- b) Give the meaning of AM.
- c) Define Correlation.
- d) What is C.V, if  $\sigma = 2.35$  &  $\bar{x} = 5.633$
- e) What is Skewness.
- f) Given P.E=0.039,  $r=0.65$ , find N.
- g) What is Factor Reversal Test?

## SECTION - B

II. Answer any 3 Questions. Each Question carries 6 Marks. (3×6=18)

2. Briefly explain the scope of Statistics.
3. Compute the Mean Deviation from the following Data:

Wages Rs.	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90
No.of Persons	8	10	15	25	20	18	9	5

4. An organisation has 2 Units A & B An analysis of weekly wages paid to workers gave the following results.

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

[P.T.O.]



- i) Which unit pays larger amount as weekly wages?  
 ii) In which unit there is greater variability in wage distribution?
5. Calculate Rank Correlation for the following data:

Marks in Statistics	48	60	72	62	56	40	39	52	30
Marks in Mathematics	62	78	65	70	38	54	60	32	31

6. Calculate Arithmetic mean.

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70
No. of Students	5	8	15	20	12	6	4

### SECTION - C

III. Answer any 3 questions from the following. Each question carries 14 Marks. (3×14=42)

7. Find Karl Pearson's Co-efficient of correlation from the following series of marks secured by 10 students in a class test in Mathematics & statistics.

Marks in Mathematics	30	40	45	50	60	65	70	75	85	90
Marks in Statistics	40	40	35	60	50	70	90	80	80	95

Also Calculate Probable error.

8. Formulate both the regression lines from the following data. Predict Y when X=50 & X when Y=25

X	40	32	38	42	36	46
Y	30	35	40	36	28	35

9. Compute Fisher's Ideal Index and test whether it satisfies the TRT & FRT.

Commodities	Base Year		Current Year	
	Value (Rs.)	Price (Rs.)	Value (Rs.)	Price (Rs.)
A	50	5	72	6
B	84	6	80	8
C	80	8	96	8
D	20	10	30	10
E	56	7	64	8



10. The wages paid to 550 workers per day in a manufacturing unit is as follows:

Wages (Rs.):	100	200	300	400	500	600	700	800	900
No. of workers:	35	40	48	100	125	87	43	22	50

Calculate Karl Pearson's Co-efficient of Skewness.

11. During the 10 weeks of a session the marks scored by the candidates, A & B, taking the Accountancy examination are as follows:

A	58	59	60	54	65	66	52	75	69	62
B	87	89	78	71	73	84	65	66	56	46

- a) Who is better scorer A or B?  
b) Who is more Consistent?
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