14222

Reg. No. [ ][ ][ ][ ][ ][ ][ ][ ]

II Semester B.B.A. Degree Examination, August/September - 2023

BUSINESS ADMINISTRATION

Quantitative Methods for Business -II

(CBCS Scheme, Repeaters 2018)

Paper : II (2.4)

Time : 3 Hours

Maximum Marks : 70

Instructions to Candidates:

Answers should be only in English.

SECTION - A

Answer any **FIVE** questions. Each question carries 2 marks. (5×2=10)

1. a) Define Statistics.

   b) List any four requisites of a good average.

   c) Find mode, if mean is 12 and median is 10.

   d) What is 'Skewness'?

   e) Define the term regression.

   f) If $bxy = 0.26$, $byx = 0.12$ obtain r.

   g) Why do you call fishers index number as ideal?

SECTION - B

Answer any **THREE** questions. Each question carries 6 marks. (3×6=18)

2. Briefly explain the functions of statistics.

3. From the following data find simple and weighted arithmetic mean.

Subject	English	Hindi	Economics	Mathematics	Accounts
Marks	60	65	53	50	40
Weight	1	1	2	3	4

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4. Find standard deviation from the following.

Wages	12	13	14	15	16	17	18	19
No. of workers	1	2	4	10	20	15	6	2

5. Given :

	X	Y
Arithmetic mean	36	85
Standard deviation	11	8

If the correlation coefficient between X & Y is 0.66. Formulate X on Y regression line.

6. Find out rank correlation from the following.

X :	56	66	49	55	64	68	46	50
Y :	40	70	50	60	80	75	49	62

SECTION - C

Answer any **Three** questions. Each question carries **14** marks.   (3×14=42)

7. From the following data calculate Mean, Median and Mode.

Class - interval :	0-100	100-200	200-300	300-400	400-500	500-600	600-700
Frequency :	6	10	21	26	19	8	10

8. Wages of workers of two shifts in a factory is given below find

    i)   Which shift workers earn better.

    ii) Which shift workers are consistent in their earnings.

Wages	50-100	100-150	150-200	200-250	250-300	300-350
Shift A	3	8	24	63	102	50
Shift B	32	44	62	41	37	34

9. Calculate fisher's index number from the data given below and show that it satisfies the time reversal and factor reversal tests.

Commodities	Base year		Current year	
	Price (Rs.)	Quantity	Price (Rs.)	Quantity
Wheat	3	20	4	18
Ghee	4	25	5	20
Rice	2	10	2	12
Sugar	8	12	10	10
Pulses	20	40	25	40

10. Calculate Karl Pearson's coefficient of correlation for the following data regarding price and demand of a certain commodity.

Price (in Rs.)	21	22	23	24	25	26	27	28	29
Demand in (Rs. '000 units)	20	19	19	17	17	16	16	15	14

Interpret the correlation by finding the P.E.

11. Draw 'Less than Ogive' and 'More than Ogive' curves from the following data and also locate the median value to verify the actual calculations.

Class - Interval	Frequency
0-50	10
50-100	50
100-150	30
150-200	40
200-250	20
250-300	10