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Second Semester B.B.A. Degree Examination, September/October 2021

(CBCS Scheme)

Business Administration

Paper 2.4 – QUANTITATIVE METHODS FOR BUSINESS – II

Time : 3 Hours] *[Max. Marks : 70*

Instructions to Candidates : Answer should be written in English only.

SECTION – A

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

   (a) Define statistics.

   (b) What is primary data?

   (c) Find median, if $A.M. = 12$ and $Z = 13$.

   (d) State any two uses of Index Numbers.

   (e) If $r = 0.9$, $N = 100$, find probable error.

   (f) Give the meaning of positive correlation.

   (g) State any two merits of arithmetic mean.

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SECTION – B

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

2. The following is the marks obtained by 50 students in statistics. Find the average marks :

Marks $\overline{X}$:	20	30	40	50	60	70	80	90
No. of students (f) :	2	5	8	12	13	6	2	2

3. Briefly explain the parts of an ideal statistical table.

4. Calculate Rank correlation from the following data :

X :	59	53	98	81	95	75	61	55
Y :	47	37	25	39	45	30	32	40

5. Find the Karl Pearson's co-efficient of skewness from the following data :

25, 15, 23, 40, 27, 25, 23, 25, 20.

6. Calculate first and third quartiles :

Income	No. of persons
250	20
300	14
325	6
350	26
375	9
400	13
600	4

SECTION – C

Answer any **THREE** questions from the following. Each question carries **14** marks : **(3 × 14 = 42)**

7. From the following calculate mode :

Weight (in kg.) :	58	60	61	62	63	64	65	66
No. of students :	4	12	24	32	32	16	8	2

8. The following table shows the Age (X) and blood pressure (Y) of 8 persons :

X :	52	63	45	36	72	65	47	25
Y :	62	53	51	25	79	43	60	33

Obtain the two regression equations. Also find the expected blood pressure of a person who is 49 years old.

9. Calculate Fishers ideal Index numbers and also show that it is satisfying both Time Reversal Test (TRT) and Factor Reversal Test (FRT) :

Commodity	Base Year		Current Year	
	Price	Quantity	Price	Quantity
Wheat	12	20	14	20
Rice	16	22	18	24
Gram	32	20	36	18

Commodity	Base Year		Current Year	
	Price	Quantity	Price	Quantity
Pulses	29	8	29	12
Ghee	62	1	70	2
Sugar	14	5	16	4

10. Draw Ogive curves from the following data and measures the median value verify it by actual calculations :

Class interval	Frequency
0 – 10	5
10 – 20	11
20 – 30	21
30 – 40	16
40 – 50	10

11. An agent obtained samples of bulbs from two companies. He had tested them for durability and got the following results :

Life (in kms.)	Type – A	Type – B
17 – 19	100	30
19 – 21	160	420
21 – 23	260	120
23 – 25	80	30

Which company's bulbs are more durable?