



SE – 274

**II Semester B.B.A. Examination, September 2020  
(CBCS) (F + R) (2014-15 and Onwards)  
BUSINESS ADMINISTRATION  
Paper – 2.4 : Quantitative Methods for Business – II**

Time : 3 Hours

Max. Marks : 70

**Instruction :** Answers should be written in **English only**.

**SECTION – A**

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

1. a) What is a variable ?
- b) What is secondary data ?
- c) What are ogive curves ?
- d) If variance = 36 and  $\Sigma X = 150$  for 10 items, find CV.
- e) State any two merits of arithmetic mean.
- f) What is an index number ?
- g) If  $r = 0.9$ ,  $N = 100$  find probable error.

**SECTION – B**

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

2. Briefly explain the parts of an ideal statistical table.
3. Find arithmetic mean from the following data :

<b>Marks :</b>	10	20	30	40	50	60	70
<b>No. of Students :</b>	18	17	23	15	7	16	4

P.T.O.



4. Calculate standard deviation from the following data :

CI :	0-10	10-20	20-30	30-40	40-50	50-60	60-70
F :	25	30	60	80	50	15	10

5. Calculate Rank Correlation from the following data :

Marks in FA :	56	63	69	72	76	80	92	96
Marks in QMB :	95	86	82	74	68	60	56	43

6. Compute price index number for the following data using aggregate expenditure method for the year 2019 on the basis of 2015.

Item	Quantity (2015)	Price (2015)	Price (2019)
		Rs.	Rs.
A	24	100	120
B	16	80	90
C	8	140	160
D	18	140	180
E	10	40	80

### SECTION - C

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

7. From the following data calculate mode.

Weight in Kgs :	58	60	61	62	63	64	65	66
No. of Students :	4	12	24	32	32	16	8	2

8. Which of the series is more consistent ?

CI :	10-20	20-30	30-40	40-50	50-60	60-70
Series A :	10	18	32	40	22	18
Series B :	18	22	40	32	18	10



9. Calculate Karl Pearson's coefficient of correlation between temperature and rainfall.

Temperature in °C :	57	42	40	38	42	45	42	44	40
Rainfall in mm : (milli meter)	10	26	30	41	29	27	27	19	18

Take 47 and 26 as assumed mean.

10. The following table shows age and blood pressure of 6 persons. Obtain two regression equations and find expected blood pressure of a person whose age is 60 years.

Age (X)	:	52	45	36	72	65	47
Blood Pressure (Y)	:	90	80	85	80	78	60

11. Construct Fisher's ideal index numbers and also show that it satisfies both Time Reversal and Factor Reversal Test.

Commodity	Base Year		Current Year	
	Price (Rs.)	Qty. (Kg)	Price (Rs.)	Qty. (kg)
A	Rs. 2	Rs. 150	4	120
B	5	10	6	15
C	4	12	5	10
D	2	60	2	50
E	3	20	3.5	30

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