UG – 349

II Semester B.B.A. Examination, Sept./Oct. 2022
(CBCS) (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

1. Answer **any five** questions, **each** question carries **2** marks. **(5×2=10)**
   a) State any two limitations of statistics.
   b) State any four measures of central tendency.
   c) Calculate range and its coefficient from the following data :
      53, 46, 18, 16, 75, 84, 28.
   d) $Q_1 = 22.5$ and $Q_3 = 54.722$, find QD and its coefficient ?
   e) Define the term "Regression".
   f) Mention 2 demerits of averages.
   g) What is a "Current year" ?

SECTION – B

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

2. Explain the functions of statistics.

3. Calculate arithmetic mean for the following data :

Monthly Income (Rs.)	Below 10	Below 20	Below 30	Below 40	Below 50	Below 60	Below 70
Number of Families	20	40	80	120	140	180	200

P.T.O.

4. Compute the Quartile Deviation and its coefficient :

Sl. No.	1	2	3	4	5	6	7	8	9	10	11	12
Marks	25	30	37	43	48	54	61	67	72	80	84	89

5. Calculate the Rank correlation after Ranking the data :

X	60	34	40	50	45	41	22	43	42	66	64	46
Y	75	32	35	40	45	33	12	30	36	72	41	57

6. Construct Price Index Numbers for the following data using aggregate expenditure for the year 2022 on the basis of 2021 :

Commodity	Quantity (2021)	Price (2021)	Price (2022)
A	12	10	16
B	10	20	25
C	20	5	8
D	1	7	14

SECTION – C

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

7. From the following data calculate Median :

Wages	0 – 20	20 – 40	40 – 60	60 – 80	80 – 100
No. of Workers	82	112	150	95	48

8. From which of the two variables, state which section is more variable in age :

Age	10	11	12	13	14	15
No. of Boys	11	14	14	10	8	5
No. of Girls	13	15	12	9	5	3

9. Calculate Karl Pearson's coefficient of correlation for the following :

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

10. From the following data :

    a) Obtain the two Regression equations.

    b) Determine the age of husband when the age of wife is 25 years.

Age of Husband	25	28	30	32	35	36	38	39	42	55
Age of Wife	20	26	29	30	25	18	26	35	35	46

11. Construct Fisher's ideal index number and also show it satisfies both TRT and FRT tests.

Item	**Base Year**		**Current Year**	
	Price (₹)	**Quantity**	**Price (₹)**	**Quantity**
P	5	6	6	7
Q	7	12	6	13
R	6	15	8	15
S	8	10	8	12