Q.P. Code : 14222

Second Semester B.B.A. Degree Examination, May/June 2019

(CBCS Scheme)

Business Administration

QUANTITATIVE METHODS FOR BUSINESS – II

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

Instructions to Candidates : Answers should be only in English.

SECTION – A

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

   (a) Define Statistics.

   (b) What is Histogram?

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

   (d) State any two tests of Skewness.

   (e) Mention any two properties of dispersion.

   (f) What is factor reversal test?

   (g) What is an Index Number?

SECTION – B

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

2. Find the Arithmetic Mean from the following :

Marks Below :	10	20	30	40	50	60	70
No. of Students :	18	35	58	73	80	96	100

3. Calculate Standard Deviation from the following data :

Class-interval :	0–10	10–20	20–30	30–40	40–50	50–60	60–70
Frequency :	25	30	60	80	50	15	10

4. Find the Karl Pearson's Coefficient of Skewness from the following data :

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

5. Compute the Price Index Number for the following data using Simple Average of Price relatives by Arithmetic Mean :

Commodity	A	B	C	D	E
Price in 2017	10	20	8	5	12
Price in 2018	16	21	8	6	24

6. Given :

	Advertisement Expenditure 'X' (Rs. in Crores)	Sales 'Y' (Rs. in Crores)
Mean	20	100
Std. Deviation	5	12

Find the likely sales when advertisement expenditure is 25 crores.

SECTION – C

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

7. From the following data calculate Median and Mode :

Weight (in kg) :	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?

Variable	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. Construct with the help of the following data given below, the Fisher's Ideal Index and show how it satisfies the TRT and FRT.

Commodities	Base Year		Current Year	
	Price (Rs.)	Quantity	Price (Rs.)	Quantity
Wheat	8	75	15	80
Ghee	20	10	25	12
Firewood	2	20	4	25
Sugar	4	10	6	14
Cloth	1	50	3	40

10. Calculate Pearson's Coefficient of correlation from the following data using 44 and 26 as the origin of X and Y respectively.

X:	43	44	46	40	44	42	45	42	38	40	42	57
Y:	29	31	19	18	19	27	27	29	41	30	26	10

11. Obtain the rank correlation coefficient between the variables X and Y from the following pairs of observed values :

X:	50	55	65	50	55	60	50	65	70	75
Y:	110	110	115	125	140	115	130	120	115	160
