



3056

Fourth Semester 5 Year B.Com.LL.B. Examination, June/July 2019

BUSINESS STATISTICS

Duration : 3 Hours

Max. Marks : 100

- Instructions :**
1. Answer Q. No. 9 and **any five** of remaining questions.
 2. Q. No. 9 carries **20** marks and the remaining questions carry **16** marks **each**.
 3. Answers should be written in **English** completely.
 4. **Use** simple calculator **only**.

Q. No. 1. Define statistics. Explain the scope of statistics. Marks : 16

Q. No. 2. Calculate mean, median and mode for the following data : Marks : 16

Marks :	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60
Frequency :	14	23	35	20	8	5

Q. No. 3. Following are the marks obtained by two students A and B in 10 tests of 100 marks each : Marks : 16

Tests:	1	2	3	4	5	6	7	8	9	10
A :	44	80	76	48	52	72	72	51	60	54
B :	48	75	54	60	63	69	72	51	57	66

Find out who is better in studies and if consistency is the criterion for award of a prize, who should get the prize ?

Q. No. 4. Data of rejected items during a production process is as follows. Calculate Karl Pearson's co-efficient of skewness. Marks : 16

No. of rejects :	21 – 25	26 – 30	31 – 35	36 – 40	41 – 45	46 – 50	51 – 55
No. of operators :	5	15	28	42	15	12	3

Q. No. 5. What are index numbers ? Explain the steps in the construction of index numbers. Marks : 16

P.T.O.



Q. No. 6. The owner of small garment shop has given the following information of his sales per week.

Marks : 16

Week :	1	2	3	4	5	6
Sales : (1000's)	2.69	2.62	2.80	2.70	2.75	2.81

Formulate two regression equations and predict the sales in week 7.

Q. No. 7. Compute Fisher's Ideal Index and show whether it satisfies TRT and FRT.

Marks : 16

Item	Base Year		Current Year	
	Price	Quantity	Price	Quantity
A	2	150	4	120
B	5	10	6	15
C	4	12	5	10
D	2	60	2	50
E	3	20	3.5	30

Q. No. 8. Write short notes on **any two** of the following :

Marks : $8 \times 2 = 16$

- Measures of dispersion
- Utility of index numbers
- Skewness.

Q. No. 9. Solve **any two** of the following questions :

Marks : $10 \times 2 = 20$

i) Calculate co-efficient of rank correlation by Spearman :

Marks in Eco. :	48	60	72	62	56	40	39	52	30
Marks in Maths :	62	78	65	70	38	54	60	32	31

ii) Represent the following data through a simple bar diagram :

Marks :	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50
Students:	10	12	18	15	25

iii) What is correlation ? What is its utility ?
