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Reg. No. : .....

Name : .....

Fourth Semester B.Com. LL.B. (Five Year Integrated) Degree Examination, February 2021

Paper III – BUSINESS STATISTICS

Time : 3 Hours Max. Marks : 80

I. Answer any **five** of the following. **Each** question carries **2** marks.

1. Define quantitative data.

2. What do you mean by mean?

3. What is a range?

4. Define correlation.

5. What is linear regression?

6. What is sampling?

7. Define mode.

(5 × 2 = 10 Marks)

II. Answer any **four** of the following. **Each** question carries **4** marks.

1. What are the characteristics of median?

2. Explain about measures of central tendency.

3. What are the merits of Quartile Deviation?

P.T.O.

4. What is Normal Distribution?

5. Calculate median from the following :

Size :	5	8	10	15	20	25
Frequency:	3	12	8	7	5	4

(4 × 4 = 16 Marks)

III. Answer any **four** of the following. **Each** question carries **6** marks.

1. Calculate Karl Pearson's co-efficient of correlation between x and y from the following data :

$n = 10$, $\Sigma x = 35$, $\Sigma x^2 = 203$

$\Sigma y = 28$, $\Sigma y^2 = 140$, $\Sigma xy = 168$

2. Calculate simple index number by average relative method.

Items	Price in the base year	Price in the current year
1	5	7
2	10	12
3	15	25
4	20	18
5	8	9

3. Arithmetic mean of 100 units items is 34. At the time of calculation three items 118, 70 and 19 were wrongly taken as 180, 17 and 90 respectively. What is the correct mean?

4. What are the uses of index numbers?

5. What are the different types of correlation?

(4 × 6 = 24 Marks)

IV. Answer any **three** of the following. **Each** question carries **10** marks.

1. From the data given below find the regression equation X and Y.

X:	5	6	7	3	2
Y:	4	5	8	2	1

2. Compute quartile deviation and inter quartile range for the following values

   23, 25, 8, 10, 9, 29, 45, 85, 10, 16.

3. A test is given to three divisions of students in a class. The mean and standard deviations of score in the three divisions are given below

Name of Division	Division A	Division B	Division C
Strength	30	25	26
Mean	45	52	53
S.D.	7	8	9

   Obtain the arithmetic mean and standard deviations for the whole class.

4. Explain the importance of correlation.

(3 × 10 = 30 Marks)
