(Pages : 2) **D – 4801**

Reg. No. : .....

Name : .....

Fourth Semester B.Com. LL.B. (Five Year Integrated) Degree Examination, February 2018
Paper – III : BUSINESS STATISTICS

Time : 3 Hours Max. Marks : 80

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

1) Define statistics in singular sense.
2) What do you mean by manifold classification ?
3) Define exhaustive events.
4) What is meant by stratified sampling ?
5) Define frequency polygon.
6) If the regression coefficient are A and B, then what would be the coefficient of correlation ?
7) What is secular trend ? **(5×2=10 Marks)**

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

1) What are the main limitations of statistics ?
2) Distinguish between classification and tabulation.
3) What are the uses of consumer price index numbers ?
4) Find the Range and Coefficient of Range of the following distribution.

Daily pocket allowance	30	40	50	60	70	80	90	100
No. of students	35	30	20	10	6	3	2	1

5) A shooter is known to hit the target in 4 out of 5 shots, whereas another shooter is known to hit the target in 3 out of 4 shots. Find the probability of the target being hit at all when both of them try. **(4×4=16 Marks)**

P.T.O.

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

1) Explain the methods of collecting primary data.

2) The following are the room rents charged by a hotel for various types of accommodation provided to the occupants : Rs. 600, 800, 1,400, 400, 1,200, 1,000, 200. Calculate the mean deviation and its coefficient.

3) What are the different approaches to the definition of probability ?

4) What are the merits and demerits of graphic method of time series ?

5) You are given the following information relating to a frequency distribution comprising 10 observations.

$\overline{X} = 5.5 \quad \overline{Y} = 4 \quad \sum X^2 = 385 \quad \sum Y^2 = 192 \quad \sum (X+Y)^2 = 947$

Compute correlation coefficient. **(4×6=24 Marks)**

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

1) Given bivariate data

X	1	5	3	2	1	1	7	3
Y	6	1	0	0	1	2	1	5

Fit a regression line on Y on X and then predict Y if X = 4.

2) Find out Mean, Median and Mode from the given data.

X	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70	70 – 80	80 – 90
f	4	16	56	97	124	137	140	150

3) Calculate trend values by the method of least square from the data given below and estimate the series for 2018.

Year	2011	2012	2013	2014	2015
Rs. in lakhs	70	74	80	86	90

4) Calculate Fisher's Ideal Index Number from the following data.

Year	Rice		Wheat		Bajra	
	P	Q	P	Q	P	Q
2012	25	50	18	30	12	5
2014	30	40	22	25	14	4

(3×10=30 Marks)