B.Com. (Part - II) (Semester - III) Examination, December - 2018
BUSINESS STATISTICS (Paper - I)
Sub. Code : 63110

Day and Date : Thursday, 06 - 12 - 2018   Total Marks : 50
Time : 03.00 p.m. to 05.00 p.m.

Instructions :
1) Attempt any five questions.
2) Figures to the right indicate full marks.
3) Use of non-programmable calculator is allowed.

Q1) a) If the sum of squares of the difference between the ranks of certain pairs of observations is 24 and the rank correlation coefficient is 0.80, find the number of observations.

b) Distinguish between Primary data and Secondary data.

[5 + 5]

Q2) Define Karl Pearson's Coefficient of Correlation. State any two properties of correlation coefficient. Compute Karl Pearson's coefficient of correlation from the following data: [10]

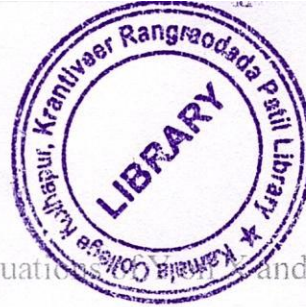| X:	2	3	5	9	11
Y:	5	7	8	12	14

Q3) Define : [10]

a) Range

b) Q.D.

c) Coefficient of Q.D.

Calculate Q.D. and its coefficient from the following data :

Sales (in Rs.)	Below 100	100-200	200-300	300-400	400-500	Above 500
No. of Shops	10	15	23	48	18	6

P.T.O

Q4) What is regression? State the regression equation Y and X on Y.[10]

Given :

$N = 25, \Sigma X = 250, \Sigma Y = 375, \Sigma X^2 = 3125, \Sigma Y^2 = 7650$ and $\Sigma XY = 2500$

Find

a)   regression equation of Y on X

b)   estimate of Y when $X = 15$

Q5) Define mean and mode. State the merits of Arithmetic mean. The marks obtained
by 250 students in Statistics are given below :   **[10]**

Marks	0-10	10-20	20-30	30-40	40-50
No. of Students	5	65	85	78	17

Compute median and mode from above data.

Q6) Define :   **[10]**

a)   S.D.

b)   C.V.

The runs scored by two batsmen in six innings of three test matches are given
below:

Innings No.	1	2	3	4	5	6
Runs scored by Virat Kohli	5	28	153	5	41	54
Runs scored by A.B. de Villiers	65	35	20	80	5	6

Examine the consistency in scoring the runs by two batsmen using C.V.

Q7) a)   State the relationship between the mean, median and mode. For a
moderately skewed distribution, the difference between mean and mode
is 6 and their sum is 50, find the value of median.

b)   State the advantages of Sampling over census.

[5 + 5]

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