

19 OCT 2019

Code: 21524

**B. Com. (Sem. – V) Examination**

**Time: 2 ½ Hours]**

**Business Statistics – I**

**[Total Marks: 70**

Que. 1 (A) What is Correlation? Explain its types with an example. Write difference between Correlation Coefficient and Regression coefficient and their properties. 14

OR

Que. 1 (A1) For two variables sum of square of difference of rank is 33 and rank correlation coefficient is 0.8. Find number of pairs. 6

(A2) Find regression lines from the following information. 8

X	28	40	40	38	35	33	46	32	36	32
Y	30	33	31	34	30	26	28	31	26	31

Que. 1 (B) Answer the following question.

1 Value of rank correlation coefficient lies between \_\_\_\_\_ 1

(a) 0 to 1 (b) -1 to 0 (c) -1 to 1 (d) None of the above

2 Covariance of two related variables is 363 and standard deviation of X and Y is 11 and 33 respectively, then Karl-Pearson's Correlation coefficient is \_\_\_\_\_. 1

(a) 1 (b) 19.05 (c) -1 (d) None of the above

3 If  $b_{yx} = 0.125$  and  $b_{xy} = 2$  then,  $r = ?$  1

(a) 0.5 (b) -0.5 (c) 0.25 (d) None of the above

4 Two regression lines intersect at \_\_\_\_\_ point. 1

(a)  $(\bar{x}, \bar{y})$  (b)  $(x, y)$  (c)  $(0, 0)$  (d) None of the above

Que. 2 (A) What is association of attributes? Give type of association of attributes and give its example. Explain method of observed and expected frequency to decide types of association of attributes. 14

OR

Que. 2 (A1) Finding information on the expensiveness of 2000 individuals and their eldest sons, it is found that there were a total of 800 fathers having wasteful nature and 600 eldest sons having wasteful nature. The number of those whose father nature is of wasteful nature while son doesn't was 300. From this information find out the coefficient of association of attributes. 8

(A2) Check whether the following data are consistent or not 6

(1)  $(A) = 200, (AB) = 125, (B) = 250, N = 600$

(2)  $N = 240, (A) = 120, (B) = 100, (AB) = 130$

Que. 2 (B) Answer the following question.

1 There is a \_\_\_\_\_ association of attributes between cholera vaccine and cholera victimization. 1

(a) Positive (b) Negative (c) Absence (d) None

2  $(B) = 40, (B) = 70, N = 100, (AB) = 30, (AB) = ?$  1

(a) 40 (b) 30 (c) 20 (d) 10

3 Which of the following does not shows value of association of attributes. 1

(a) 0.87 (b) 0 (c) 1.02 (d) -0.34

4 In 2x2 Contingency table one value is found negative then there is \_\_\_\_\_ in data. 1

(a) Consistency (b) Inconsistency (c) Absence (d) None

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