K20U 0442

Reg. No. : ....

Name : ....

II Semester B.Com. Degree CBCSS (OBE) – Regular Examination, April 2020
(2019 Admission)
COMPLEMENTARY ELECTIVE COURSE
2C01COM : Quantitative Techniques for Business Decisions

Time : 3 Hours   Max. Marks : 40

PART – A

Answer **any six** questions from the following. **Each** question carries **1** mark.

1. In how many ways the letters of the word "SIMPLE" can be arranged ?

2. What is Non-Parametric test ?

3. Distinguish between permutation and combination.

4. What is moving average ?

5. What is scatter diagram ?

6. Define probability.

7. What is linear regression ?

8. Write a note on least square method.   (6×1=6)

PART – B

Answer **any six** questions from the following. **Each** question carries **3** marks.

9. The ranks of 6 persons before and after a training course are as follows

Persons	A	B	C	D	E	F
Rank before	3	5	4	2	1	6
Rank after	4	6	5	2	1	3

Compute Spearman's Rank Correlation.

P.T.O.

10. Given the following data, what would be the possible yield of rice per acre when rainfall is 29 cm ?

	Rainfall	Yield
Mean	25	40
Variance	9	36

Coefficient of correlation between rainfall and yield = 0.8.

11. What are the different types of regression analysis ?

12. In a random arrangement of the letters of the word Allahabad, find the chance that the vowels occupy the even places.

13. From the following data obtain the two regression equations.

X	6	2	10	4	8
Y	9	11	5	8	7

14. Explain :

   a) Complementary events

   b) Dependent events

   c) Equally likely events.

15. From the regression equations find the mean values of X and Y series.

$$8x - 10y = -66$$

$$40x - 18y = 214$$

16. A bag contains 7 red, 12 white and 4 green balls. What is the probability that (a) 3 balls drawn are all white (b) 3 balls drawn are one of each colour ?

(6×3=18)

PART – C

Answer **any two** questions from the following. **Each** question carries **8** marks.

17. Test whether the accidents occur uniformly over week days on the basis of the following information.

Days of the week	Sun.	Mon.	Tue.	Wed.	Thur.	Fri.	Sat.
No. of accidents	11	13	14	13	15	14	18

18. Calculate the long-term trend and short-term oscillations with a three year period from the following data.

Year	1999	2000	2001	2002	2003	2004	2005	2006
Output of tea tons	1632	1557	1652	2100	2620	3120	3236	3562

19. What is Chi Square test ? Explain its procedure and applications.   (2×8=16)