



Reg. No. :

Name :

K20U 044

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)
