



K23U 1797

Reg. No. :

Name :

II Semester B.Com. Degree (CBCSS – Supplementary)
Examination, April 2023
(2017– 2018 Admissions)
Complementary Course

2C02COM : QUANTITATIVE TECHNIQUES FOR BUSINESS DECISIONS

Time : 3 Hours

Max. Marks : 40

PART – A

I. Answer **all** questions. **Each** carries $\frac{1}{2}$ mark.

- 1) If two variables are positively correlated, then r is
- 2) The probability of getting a head when tossing a coin is
- 3) The mean of a standard normal distribution is
- 4) The parameters of Binomial distribution are

($4 \times \frac{1}{2} = 2$)

PART – B

II. Answer **four** questions. **Each** carries **one** mark.

- 5) Define conditional probability.
- 6) What is positive correlation ?
- 7) What is meant by regression lines ?
- 8) What is time series analysis ?
- 9) What is permutation ?

10) What is normal distribution ?

($4 \times 1 = 4$)

PART – C

III. Answer **any six** questions (**not** exceeding **one** page). **Each** carries **three** marks.

- 11) What are the applications of theory of probability ?
- 12) What are the properties of the normal distribution ?
- 13) What are the different methods of measuring Trend ?

P.T.O.



- 14) From the following, compute Karl Pearson's correlation coefficient.

x	6	8	12	15	18	20	24	28	31
y	10	12	15	15	18	25	22	26	28

- 15) Out of 500 items selected for inspection, 0.2% are found to be defective. Find how many lots will contain exactly no defective if there are 1000 lots.
- 16) In how many ways can 3 balls be drawn from a bag containing 10 white balls and 10 red balls ?
- 17) A class consists of 100 students, 25 of them are girls and 75 boys, 20 of them are rich and remaining poor, 40 of them are fair complexioned. What is the probability of selecting a fair complexioned rich girl ?
- 18) Find the trend for the following series using a three year weighted moving average with weights 1, 2, 1.

Year	1	2	3	4	5	6	7
Value	2	4	5	7	8	10	13

(6×3=18)

PART – D

- IV. Answer any **two** questions. Each carries **eight** marks.

- 19) What are the different types and significances of correlation ? Explain.
- 20) If the chance of workers suffering from occupational hazards is 25%. What is the probability that out of 6 workers selected at random, four or more will suffer from the hazards ?
- 21) From the following particulars, obtain the regression equation for costs related to age :

Age of cars (in years)	2	4	6	8
Maintenance cost (in '000)	10	20	25	30

(2×8=16)