

Reg. No. : .....

Name : .....

**Second Semester B.Com./B.Com. (Logistics) Degree (CBCSS – OBE –  
Supplementary/Improvement) Examination, April 2025  
(2019 to 2023 Admissions)  
Complementary Elective Course  
2C01 COM : QUANTITATIVE TECHNIQUES FOR BUSINESS DECISIONS**

Time : 3 Hours

Max. Marks : 40

**SECTION – A**Answer **any six** questions. **Each** question carries **1** mark.**(6×1=6)**

1. What is meant by seasonal variation ?
2. What is non-linear regression ?
3. Distinguish between type I and type II error.
4. What is scatter diagram ?
5. Distinguish between permutation and combination.
6. What do you mean by level of significance ?
7. State any two properties of regression coefficient.
8. Write a short note on T-test.

**SECTION – B**Answer **any six** questions. **Each** question carries **3** marks.**(6×3=18)**

9. Given that co-efficient of correlation for 9 samples is 0.685. Compute probable error and standard error.
10. State the steps involved in chi-square test.
11. A committee is to be constituted by setting two people at random from a group consisting of 3 economist and 4 statisticians. Find the probability that the committee will consist of
  - i) 2 economist
  - ii) 2 statisticians
  - iii) 1 economist and 1 statistician.

P.T.O.



12. Differentiate between one-tailed and two-tailed tests.
13. Explain the properties of binomial distribution.
14. What is null hypothesis ? How it is different from alternate hypothesis ?
15. It is known from past experience that in a certain plant there are on the average 4 industrial accidents per month. Find the probability that in a given year there will be less than 4 accidents. Assume Poisson distribution.  $e^{-4} = 0.0183$ .
16. Calculate 3 yearly moving average from the following data.
 

<b>Year :</b>	2008	2009	2010	2011	2012	2013	2014	2015
<b>Output :</b>	1632	1557	1652	2100	2620	3120	3236	3562

**SECTION – C**Answer **any two** questions. **Each** question carries **8** marks.**(2×8=16)**

17. The ranking of 10 countries in international tourism expenditure in a gap of a decade are given below.

Countries	Rank in 2005	Rank in 2015
U.S.A.	1	1
Germany	2	2
Japan	4	3
UK	3	4
Italy	10	5
France	5	6
Canada	6	7
Netherland	7	8
Austria	8	9
Taiwan	9	10

Compute Spearman's rank correlation coefficient.

18. Define time series. What are the methods of measurement of trend ?
19. The following data gives the age and blood pressure of ten persons.

<b>Age</b>	56	42	36	47	49	42	60	72	63	55
<b>BP</b>	147	125	118	128	145	140	155	160	149	150

Determine regression equation of X on Y and Y on X.