



K21U 6574

Reg. No. : .....

Name : .....



I Semester B.Sc. Degree (CBCSS – Supplementary)  
Examination, November 2021  
(2015 – 2018 Admissions)

COMPLEMENTARY COURSE IN STATISTICS FOR MATHS/COMP.SCI.  
1C01 STA : Basic Statistics

Time : 3 Hours

Max. Marks : 40

**Instruction : Use of calculators and statistical tables are permitted.**

PART – A  
(Short Answer)

Answer **all** the 6 questions.

(6×1=6)

1. Define a sample.
2. Find the geometric mean of 1, 3 and 9.
3. Find the coefficient of range of 0, –2, 7, 5 and 3.
4. State the name of two positional averages.
5. Write the formula for coefficient of multiple correlation between  $X_1$  on  $X_2$  and  $X_3$ .
6. Write any two uses of index numbers.

PART – B  
(Short Essay)

Answer **any** 6 questions.

(6×2 =12)

7. Define Census and Sampling.
8. Differentiate between primary and secondary data.
9. Explain Kurtosis.
10. Given Mean as 58, median as 62 and standard deviation as 16. Find Karl Pearson's coefficient of skewness.

P.T.O.



11. Define raw moments.
12. Define partition values.
13. Define positive and negative correlation.
14. State factor reversal test.

## PART – C

## (Essay)

Answer **any 4** questions.

(4×3=12)

15. Differentiate between probability and non-probability sampling.
16. Find the mean deviation about mean for the following values :  
25, 63, 85, 75, 62, 70, 83, 28, 30, 12.
17. Show that GM is the GM of AM and HM.
18. Define quartiles and percentiles. Describe their interrelations.
19. Describe the method of fitting a straight line.
20. Explain : a) seasonal variations b) cyclic variations.

## PART – D

## (Long Essay)

Answer **any 2** questions.

(2×5=10)

21. Calculate the coefficient of variation for the following data :

<b>Size</b>	0 – 2	2 – 4	4 – 6	6 – 8	8 – 10	10 – 12
<b>Frequency</b>	2	4	6	4	2	6

22. From the data given below find the regression equation of Y on X.

<b>X</b>	2	3	4	5	6
<b>Y</b>	3	5	4	8	9

23. Distinguish between correlation and regression analysis.
24. What are weighted index numbers ? Show that Fisher's index number satisfies time reversal test.