



Reg. No. : .....

Name : .....



K20U 0328

**II Semester B.Sc. Degree (CBCSS – Supplementary/Improvement)  
Examination, April 2020  
(2014-2018 Admissions)**

**COMPLEMENTARY COURSE IN STATISTICS  
(FOR GEOGRAPHY/PSYCHOLOGY CORE)  
2C02 STA : Statistical Methods**

Time : 3 Hours

Max. Marks : 40

**PART – A  
(Short Answer)**

Answer **all** the questions.

**(6×1=6)**

1. Write the general form of a quadratic curve.
2. What is meant by correlation between two variables ?
3. Define price relative.
4. Give an example for seasonal variation in time series.
5. What do you mean by secular trend ?
6. Define total fertility rate.

**PART – B  
(Short Essay)**

Answer **any six** questions.

**(6×2=12)**

7. How do you find Karl Pearson's correlation coefficient ?
8. What do you mean by perfect positive and negative correlations between two variables ?
9. Describe the concept of regression analysis.
10. Why index numbers are called economic barometers ? Explain.

P.T.O.



11. Define quantity index number.
12. What is cost of living index number ?
13. List the various components of time series.
14. What are the normal equations for fitting a linear regression line ?

## PART – C

## (Essay)

Answer **any four** questions.

(4×3=12)

15. Describe the method of fitting an exponential curve.
16. Define a scatter diagram and describe its use in bivariate analysis.
17. What is meant by time reversal test ? Show that Fisher's Ideal index number satisfies this test.
18. Distinguish between simple and weighted index numbers.
19. Describe the method of moving average in determining trend.
20. Define (i) Infant mortality rate (ii) Crude death rate (iii) Age specific death rate.

## PART – D

## (Long Essay)

Answer **any two** questions.

(2×5=10)

21. The following are marks of ten students scored in two tests. Calculate Spearman's rank correlation for the data.

Students	A	B	C	D	E	F	G	H	I	J
Test I	84	98	91	72	86	93	80	0	92	87
Test II	73	63	87	66	78	78	91	0	88	77

22. Explain the merits and demerits of index numbers.
23. Describe the steps in constructing cost of living index number.
24. Explain the different sources of vital statistics ?