

20U5102

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Name:

Reg. No:

FIFTH SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2022

(CBCSS-UG)

(Regular/Supplementary/Improvement)

CC19U STA5 D01 - ECONOMIC STATISTICS

(Statistics – Open Course)

(2019 Admission onwards)

Time: 2 Hours

Maximum: 60 Marks

Credit: 3

SECTION-A

Answer *all* questions. Each question carries 2 marks.

(Short answer type, not to exceed 50 words each)

1. What are the components of time series?
2. Define secular trend.
3. Distinguish between additive and multiplicative models of time series.
4. Write down the normal equations for fitting a straight line.
5. Define cyclical variations.
6. Define Index Number
7. What is price relative?
8. Give the formula for Marshall Edgeworth Index Number?
9. Distinguish between fixed base and chain base index Number?
10. Define Splicing.
11. Why is Fisher's Index number called ideal?
12. Distinguish between Laspeyre's and Paasche's index numbers.

(Ceiling: 20 Marks)

SECTION-B

Answer *all* questions. Each question carries 5 marks.

(Paragraph I Problem type, not to exceed 100 words each)

13. Discuss the utility of time series analysis in economic and business statistics.
14. Explain the method of simple averages.
15. Fit a quadratic trend for the following time series. Estimate the sales for the year 2016.

Year	2011	2012	2013	2014	2015
Sales ('000)	16	18	19	20	24

16. Obtain Trend value by Free Hand curve and Semi - Average methods for the following data:

Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Value	45	58	62	50	70	72	68	70	78	75

17. Distinguish between simple index number and weighted index number? Give the weighted index numbers in common use?
18. What do you understand by time reversal test? Test whether Laspeyre's price index number satisfy this test.
19. Compute Fisher's ideal index from the following data:

Commodities	Base year		Current Year	
	Price	Quantity	Price	Quantity
A	5	2	8	1
B	6	3	8	3
C	8	1	11	1
D	3	2	3	4

(Ceiling: 30 Marks)

SECTION-C

Answer any *one* question. The question carries 10 marks.
(Essay type, not to exceed 500 words)

20. Calculate seasonal indices by the ratio to moving average method from the following data:

Wheat Prices (in Rupees per Quintal)

Year	Quarter I	Quarter II	Quarter III	Quarter IV
1995	75	60	54	59
1996	86	65	63	80
1997	90	72	66	85
1998	100	78	72	93

21. Explain the steps involved in the construction of Consumer price Index Number.

(1 × 10 = 10 Marks)
