19U596 (Pages: 2) Name: ……..……..……..

Reg. No: ……..…….

FIFTH SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2021

(CBCSS-UG)

CC19U ST5 D01 - ECONOMIC STATISTICS

(Statistics – Open Course)

(2019 Admission - Regular)

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. Define Time Series.
2. Distinguish between additive and multiplicative models of time series.
3. Define secular trend of a time series.
4. Give the normal equations for fitting a second degree parabolic curve
5. What are the methods used for measuring seasonal variation?
6. Give any two limitations of index number?
7. Index numbers are specialised averages. Explain
8. What is the difference between a price index and a quantity index?
9. Price index number for 2015 with 2001 as base year by Laspeyre's method and fishers' method are 136.74 and 135.3 respectively. Compute Paasche's price index number?
10. Define factor reversal test?
11. What are weighted Index Numbers?
12. What do you mean by consumer price index number?

(Ceiling: 20 Marks)

SECTION B

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

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

13. Distinguish between cyclic variation and irregular variation.
14. Fit a trend line to the following data by the graphic method:

Year	2001	2002	2003	2004	2005	2006	2007
Production	80	90	92	83	94	99	92

15. Explain the ratio to moving average method of estimating seasonal variation in a time series.

16. Estimate trend values from the data on production using 4 yearly moving averages.

Year	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Values	12	25	39	54	70	87	105	100	82	65

17. Explain briefly the points to be remembered while constructing an index number.

18. Calculate Cost of Living Index Number for the following data:

	Prices		
Commodity groups	Base year	Given year	Weights (in %)
1. Food	450	600	58.55
II. clothing	250	425	5.37
III. Fuel and light	50	80	6.15
IV. Housing	300	400	9.61
V. Miscellaneous	300	450	20.32

19. Distinguish between chain base method and fixed base method of constructing Index numbers?

(Ceiling: 30 Marks)

SECTION C

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

20. Calculate the seasonal variation indices to the following data by the method of simple averages?

Year	Quarter I	Quarter II	Quarter III	Quarter IV
2005	3.7	4.1	3.1	3.5
2006	3.7	3.9	3.6	3.6
2007	4	4.1	3.3	3.1
2008	3.3	4.4	4	4

21. The following table gives the data of production in million tons and price per ton of four principal crops in India during the years 2009 and 2015. Construct Fisher's ideal index number of prices for the year 2015.

Commodity	Production in million tons		Price (Rupees per ton)	
	2009	2015	2009	2015
A	25	30	150	300
B	10	12	120	200
C	2	3	600	1000
D	1	2	200	300

(1 × 10 = 10 Marks)

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