B.A. DEGREE EXAMINATION,APRIL 2020
I Year II Semester
Statistics for Economists-II

Time : 3 Hours **Max.marks :75**

Section A $(10 \times 2 = 20)$ Marks

Answer any **TEN** questions

1. What do you know about sampling?
2. Define population.
3. Define correlation.
4. State the limitations of correlation.
5. What do you know about the term regression?
6. State the properties of regression coefficient.
7. Define index number.
8. What is meant by cost of living index number?
9. State the uses of index numbers.
10. Explain time series.
11. What do you know about least square method?
12. List the methods of measurement of secular trend.

Section B $(5 \times 5 = 25)$ Marks

Answer any **FIVE** questions

13. Explain in detail about sampling errors.
14. Find rank correlation to the following.

X	85	60	73	40	90
Y	93	75	65	50	80

15. Distinguish between correlation and regression.
16. Calculate Laspeyre's index number, Paasche's price index number to the following.

Commodity	2001		2002	
	Price(in Rs)	Quantity(in Kgs)	Price(in Rs)	Quantity(in Kgs)
A	20	8	40	6
B	50	10	60	5
C	40	15	50	15
D	20	20	20	25

17. Construct a price index number by simple average of price relative using arithmetic mean.

Commodity	A	B	C	D	E	F
Price in 2000 (Rs.)	20	30	10	25	40	50
Price in 2001 (Rs.)	25	30	15	35	45	55

18. Calculate three yearly moving average to the following data

Year	1973	1974	1975	1976	1977	1978	1979	1980
Profit (Rs)	21	22	23	25	24	22	25	26

19. Explain in detail about the components of time series.

Section C $(3 \times 10 = 30)$ Marks

Answer any **THREE** questions

20. Discuss i)Simple random sampling ii)Stratified random sampling.
21. Find correlation to the following.

X	12	13	14	15	16	17
Y	15	20	25	30	35	40

22. Find regression equations to the following data.

X	42	44	58	55	89	98	66
Y	56	49	53	58	65	76	58

23. Construct Fisher's ideal index to the following data and also prove that it satisfies Time Reversal test and Factor reversal test.

Commodity	2007		2008	
	Price(in Rs)	Quantity(in Kgs)	Price(in Rs)	Quantity(in Kgs)
A	6	50	10	56
B	2	100	2	120
C	4	60	6	60
D	10	30	12	24
E	8	40	12	36

24. Fit a straight-line by the method of least squares to the following.

Year:	1998	1999	2000	2001	2002
Sales (Rs):	70	74	80	86	90

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