B.A. DEGREE EXAMINATION,APRIL 2019
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 is a sample?
2. Mention the two different methods of sampling.
3. What is pilot survey?
4. Define the term- Correlation.
5. What is scatter diagram?
6. State any two properties of Correlation coefficient.
7. Distinguish between Variance and Co-variance.
8. What are regression lines?
9. What is meant by an index number?
10. What is time series analysis?
11. Mention any two measurements of seasonal variation.
12. What is moving average method?

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

Answer any **FIVE** questions

13. Distinguish between stratified and cluster sampling.
14. Find the coefficient of correlation from the following data.

X	1	2	3	4	5	6	7
Y	6	8	11	9	12	10	14

15. Differentiate between Correlation and Regression.
16. What are the limitations of Index numbers?
17. What is the difference between fixed base and chain based methods?
18. Explain the methods of measuring seasonal variations.
19. Explain the problems in the construction of Index numbers.

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

Answer any **THREE** questions

20. Explain the various methods of sampling.

21. Calculate Karl Pearsons Coefficient of Correlation between X and Y for the following data.

X	15	20	25	30	40	50
Y	440	430	450	370	340	370

22. From the following data, find the two regression equations

X	1	2	3	4	5	6	7
Y	2	4	7	6	5	6	5

23. Below are given the annual production (in thousand tonnes) of a fertilizer factory:

Year	1970	1978	1979	1980	1981	1982	1983
Production	70	75	90	91	95	98	100

    (i) Fit a straight line trend by the method of least squares and tabulate the trend values.

    (ii) Convert annual trend equation into a monthly trend equation.

24. Explain the components of time series analysis.

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