S – 1445

Reg. No. : ....

Name : ....

Fifth Semester B.A. Degree Examination, December 2023

First Degree Programme under CBCSS

Economics

Core Course VII

EC 1542 : STATISTICAL METHODS FOR ECONOMICS

(2019 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** questions in **one** or **two** sentences. Each question carries **1** mark.

1. Bivariate Analysis.

2. Normal distribution.

3. Kurtosis.

4. Probable error.

5. Variance.

6. Multiple linear regression.

7. Trend component in a time series.

8. Consumer Price Index.

9. Deflating.

10. Random variable.

(10 × 1 = 10 Marks)

P.T.O.

SECTION – B

Answer any **eight** questions not exceeding one paragraph. Each question carries **2** marks.

11. What is the primary purpose of univariate analysis in statistics?

12. Calculate the mean, median, and mode for the following dataset:

    10, 15, 20, 25, 30.

13. How is standard deviation calculated?

14. What is the Gini coefficient?

15. Describe the geometric mean.

16. What is Spearman's rank correlation coefficient used for?

17. How is regression analysis used in economics?

18. Describe seasonality in a time series.

19. What is meant by the Tests of Index Numbers, and why are they important?

20. Why does we assign weights in the construction of weighted index numbers?

21. Examine the properties of probability.

22. A card is drawn from a pack of cards. What are the probabilities of getting

    (a) a spade

    (b) a black card and

    (c) a King or a Queen

<div align="right">(8 × 2 = 16 Marks)</div>

SECTION – C

Answer any **six** questions not exceeding **120** words. Each question carries **4** marks.

23. What is an average? Examine the important Requisites of a good average.

24. Find the Arithmetic Mean for the following distribution

Class	100-200	200-300	300-400	400-500	500-600	600-700	700-800
Frequency	10	18	20	26	30	28	18

25. Explain Lorenz Curve and its uses in economics.

26. Explain partial correlation and its purpose in statistics.

27. What is Method of Least Squares? Discuss.

28. Calculate the coefficient of correlation for the following data

X	12	20	15	22	18	24	20	12	15	22
Y	30	35	28	36	29	39	30	25	30	38

29. Compute the trend values by the method of least squares

Year	2000	2001	2002	2003	2004	2005	2006	2007
No. of products in lakhs	56	55	51	47	42	38	35	32

30. Describe the moving average method for trend measurement in time series data with an example?

31. Explain Axiomatic Approach of Probability theory.

(6 × 4 = 24 Marks)

SECTION – D

Answer any **two** questions not exceeding **4** pages. Each question carries **15** marks.

32. Examine the meaning, types and uses of Correlation.

33. Explain the concept of time series analysis, its main components and the methods of measuring trends.

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