22U370 (Pages: 2) Name: .....

Reg.No: .....

THIRD SEMESTER B.Voc. DEGREE EXAMINATION, NOVEMBER 2023

(CBCSS - UG)

(Regular/Supplementary/Improvement)

CC21U SDC3 IS07 - INTRODUCTORY STATISTICS

(Information Technology)

(2021 Admission onwards)

Time : 2.00 Hours Maximum : 60 Marks

Credit : 3

Part A (Short answer questions)

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

1. Write any two main features of Indian Statistical System.
2. Define Secondary data. State its major sources.
3. Differentiate between interval and ratio scale of measurement.
4. Let the average mark of 40 students of class A be 38; the average mark of 60 students of another class B is 42. What is the average mark of the combined group of 100 students?
5. Calculate mean deviation about mean of 8, 24,12, 16, 10, 20.
6. Explain the terms skewness and kurtosis.
7. What is a scatter diagram ?
8. Write any two properties of regression coefficients
9. Explain the term ‘secular trend’.
10. Distinguish between additive and multiplicative model in the analysis of time series.
11. Write a short note on Curve fitting.
12. What are Value Index numbers?

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

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

13. Explain CSO.
14. The first four raw moments of a distribution are 1, 4, 10 and 46 respectively. Compute the first four central moments beta constants.

15. The following are the ranks given by two gudges for 10 competitors in a recitation competition. Are they like the same type of recitation?

Judge 1	5	4	2	6	7	10	9	1	8	3
Judge 2	4	1	5	7	8	9	10	6	3	2

16. Fit a straight line of the form y=ax+b to the following data.

x	1	2	3	4	5	6	7
y	7	13	19	25	32	40	50

17. Explain the methods of moving averages for calculating the trend.

18. What do you understand by price relatives and discuss the methods of constructing index numbers based on them?

19. Define (i) Laspeyres' (ii) Paasche's and (iii) Fisher index number of prices.

(Ceiling: 30 Marks)

Part C (Essay questions)

Answer any ***one*** question. The question carries 10 marks.

20. Price of a particular commodity for 5 years in 2 cities are given below.
    Prices in city A: 22 24 19 21 17
    Prices in city B: 18 20 18 15 19
    Find from the above data the city which has more stable price.

21. Fit an exponential curve of the form $y = ab^x$ to the following data.

x	1	2	3	4	5	6	7	8
y	1.0	1.2	1.8	2.5	3.6	4.7	6.6	9.1

(1 × 10 = 10 Marks)

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