

21U368

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Name:

Reg.No:

THIRD SEMESTER B.Voc. DEGREE EXAMINATION, NOVEMBER 2022

(CBCSS - UG)

CC21U SDC3 IS07 - INTRODUCTORY STATISTICS

(Information Technology)

(2021 Admission - Regular)

Time : 2.00 Hours

Maximum : 60 Marks

Credit : 3

Part A (Short answer questions)

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

1. What are the components of Statistics Wing of Ministry of Statistics and Programme Implementation?
2. Distinguish between primary and secondary data.
3. Differentiate between interval and ratio scale of measurement.
4. Distinguish between absolute and relative measures of dispersion.
5. Define standard deviation
6. Define moments.
7. What are the merits and demerits of rank correlation coefficient?
8. State any two properties of regression coefficient.
9. What do you mean by trend?
10. What are the normal equations of straight line $y = ax + b$.
11. What are price index numbers?
12. Compare between Laspeyres's and Paasche's Index numbers.

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

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

13. Explain CSO.
14. What is skewness? Explain the various methods of measuring it.
15. Fit a straight line to the following data.

x	1	2	3	4	5
y	14	13	4	5	2

16. Prove or disprove that correlation coefficient between two variables lies between -1 and +1.
17. Distinguish between seasonal variations and cyclic variations.
18. Explain the method of moving averages.
19. Compute a price index for the following by a (a) Simple aggregate and (b) Average of price relative method by using both arithmetic mean and geometric mean.

Commodity	A	B	C	D	E	F
Price in 2002 (Rs.)	20	30	10	25	40	50
Price in 2007 (Rs.)	25	30	15	35	45	55

(Ceiling: 30 Marks)

Part C (Essay questions)

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

20. Calculate arithmetic mean and the median of the frequency distribution and hence calculate mode using the empirical relation.

Class	130-134	135-139	140-144	145-149	150-154	155-159	160-164
Frequency	5	15	28	24	17	10	1

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)
