

24U198

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Name : .....

Reg. No : .....

FIRST SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2024

(FYUGP)

CC24U STA1 MN109 - ELEMENTARY STATISTICS

(B.Sc. Statistics - Minor Course)

(2024 Admission - Regular)

Time: 2.0 Hours

Maximum: 70 Marks

Credit: 4

Part A (Short answer questions)

Answer all questions. Each question carries 3 marks.

1. Explain quantitative variables with examples. [Level:2] [CO1]
  2. Make a frequency distribution for the following ungrouped data: [Level:3] [CO2]  
5, 8, 7, 5, 6, 8, 9, 7, 8, 5, 5, 8, 7, 5, 6, 8, 9, 7, 8, 5, 5, 8, 7, 5, 6, 8, 9, 7, 8, 5.
  3. Describe geographical classification. [Level:2] [CO2]
  4. Discuss historiogram. [Level:2] [CO2]
  5. Calculate the arithmetic mean of 305, 320, 332, 350. [Level:3] [CO3]
  6. Calculate Mean of the following data. [Level:3] [CO3]
- |           |    |    |    |    |    |    |    |
|-----------|----|----|----|----|----|----|----|
| Mid value | 5  | 10 | 15 | 20 | 25 | 30 | 35 |
| Frequency | 18 | 29 | 46 | 62 | 51 | 14 | 10 |
7. Explain pie diagram. [Level:2] [CO2]
  8. Calculate harmonic mean of 5, 11, 12, 16, 7, 9, 15, 13, 10, 8. [Level:3] [CO3]
  9. Discuss regression. Explain the properties of regression coefficient. [Level:2] [CO4]
  10. Explain correlation coefficient. List the properties of correlation coefficient. [Level:2] [CO4]

(Ceiling: 24 Marks)

Part B (Paragraph questions/Problem)

Answer all questions. Each question carries 6 marks.

11. Explain different types of data. [Level:2] [CO1]
12. Describe the importance of ensuring accuracy, validity and precision in quantitative research. [Level:2] [CO1]

13. Given the following frequency distribution, Make a less-than and greater-than cumulative frequency distribution tables. [Level:3] [CO2]

Class	10-19	20-29	30-39	40-49	50-59
Frequency	5	7	12	10	6

14. Describe merits and demerits of mode. [Level:2] [CO3]

15. Calculate  $P_{50}$  [Level:3] [CO3]

10, 12, 15, 18, 20, 22, 25, 28, 30, 33, 35, 38, 40, 42, 45.

16. Compute median of the following. [Level:3] [CO3]

Class	0-5	5-10	10-15	15-20	20-25
Frequency	7	18	25	30	20

17. Calculate standard deviation for the following data. [Level:3] [CO3]

Class	3-5	5-7	7-9	9-11	11-13	13-15
Frequency	10	35	70	35	12	6

18. Explain scatter diagram. [Level:2] [CO4]

**(Ceiling: 36 Marks)**

**Part C (Essay questions)**

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

19. Describe different types of graphs [Level:2] [CO2]

20. Calculate the correlation coefficient from the following data and interpret the [Level:3] [CO4]

result.

Marks in English	30	40	5	20	10	45	22	18
Marks in Hindi	55	75	60	12	11	38	25	15

**(1 × 10 = 10 Marks)**

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