First Semester FYUGP Degree (Reg/Sup) Examination
November 2025
KU1DSCSTA122 - STATISTICAL METHODS
2024 Admission onwards

Time : 2 hours

Maximum Marks : 70

Section A

Answer any 6 questions. Each carry 3 marks.

1. Calculate the standard deviation of the following data: 4, 8, 6, 5, 3.

2. Define Mean deviation about median.

3. Explain the difference between a simple and multiple bar diagram.

4. What are the advantages of charts, diagrams and graphs ?

5. Describe an ogive curve in brief.

6. Define secondary data with an example.

7. Differentiate between variables and attributes.

8. Explain the difference between less than and greater than cumulative frequency with example.

Section B

Answer any 4 questions. Each carry 6 marks.

9. Explain the construction of a histogram and frequency curve.

10. Construct a Pie chart for the following data on monthly expenditure of a family (in percentage)

Rent	Food	Utilities	Education	Others
40	30	15	10	5

11. Draw a histogram and frequency polygon for the following data.

Class	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Frequency	5	10	12	17	13	11	16

12. What is meant by sampling? Discuss the merits and limitations of sample survey over census.

13. Explain with examples the ungrouped and grouped frequency distributions.

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14. Define discrete and continuous frequency distributions. Explain the formation of each from raw data.

Section C

Answer any 2 questions. Each carry 14 marks.

15. (a) For two positive observations prove that AM x HM = GM².

    (b) Define arithmetic mean, median, and mode. Explain the situations in which each measure is most appropriate.

16. Explain different measures of central tendency with examples.

17. Explain different measures of dispersion. Calculate mean deviation and standard deviation for the following data set: 8, 12, 15, 20, 25, 30, and interpret the results.