25U188 (Pages: 2) Name : .....

Reg. No : .....

FIRST SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2025

(FYUGP)

(Regular/Supplementary/Improvement)

CC24USTA1FM105(2) - FUNDAMENTALS OF STATISTICS

(Statistics - Minor Course)

(2024 Admission onwards)

Time: 1.5 Hours Maximum : 50 Marks

Credit: 3

Part A (Short answer questions)

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

1. Differentiate census survey and sample survey. [Level:2] [CO1]

2. Define inferential statistics. [Level:2] [CO1]

3. Explain grouped frequency table with an example. [Level:2] [CO2]

4. Distinguish between frequency curve and frequency polygon. [Level:2] [CO2]

5. What is meant by Quantitative data and give one example? [Level:2] [CO2]

6. Define weighted geometric mean. [Level:2] [CO3]

7. Define absolute measure of dispersion and give on example. [Level:2] [CO3]

8. State true or false. [Level:3] [CO3]

   i) Harmonic mean cannot be calculate if any of the values is zero

   ii) Geometric mean of four values x_1, x_2, x_3, x_4 is given by $\sqrt{x_1.x_2.x_3.x_3}$

9. Which of the following is true for the statement: [Level:2] [CO4]

   Frequency distribution is symmetric

   i) Mean < Median< Mode

   ii) mean>Median> Mode

   iii) Mean= Median= Mode

10. For a set of observations mean and median are 23 and 20 what is the mode. [Level:3] [CO4]

(Ceiling: 16 Marks)

Part B (Paragraph questions/Problem)

Answer ***all*** questions. Each question carries 6 marks.

11. Explain the different methods of collecting Primary data. [Level:2] [CO1]

12. Explain the various scale of measurement with examples. [Level:2] [CO2]

13. Compare pie chart with other types of data visualization techniques discuss the merits and demerits. [Level:3] [CO2]

14. Define arithmetic mean of a grouped frequency distribution. Show that sum of deviations taken from arithmetic mean is zero. [Level:2] [CO3]

15. If the median wage from the following frequency distribution is 46.75 finding the missing values. [Level:3] [CO3]

Wage in Rs	20-30	30-40	40-50	50-60	60-70	Total
No. of labourers	3	f_1	20	f_2	5	43

(Ceiling: 24 Marks)

Part C (Essay questions)

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

16. i) Explain mean deviation and standard deviation. [Level:3] [CO3]
ii) What are their merits and demerits.

17. Find first, second and third quartiles from the following data. [Level:3] [CO4]

Class Interval	0-4	4-8	8-12	12-16	16-20	20-24	24-28
Frequency	3	7	13	18	9	6	4

(1 × 10 = 10 Marks)

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