

24U1101

(Pages: 2)

Name :

Reg. No :

FIRST SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2024

(FYUGP)

CC24U STA1 MN105 - DESCRIPTIVE STATISTICS

(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. Discuss the key differences between discrete and continuous data, including examples of when each type of data is used in research. [Level:2] [CO1]
2. Briefly explain how quantitative data differs from qualitative data. [Level:2] [CO1]
3. A car rental company tracked the daily mileage of 25 vehicles. The mileages are as follows: 40, 55, 65, 70, 80, 45, 60, 90, 100, 55, 60, 75, 50, 85, 95, 70, 60, 40, 80, 90, 100, 65, 75, 85, 50. Construct a continuous frequency table with appropriate intervals. [Level:3] [CO2]
4. Describe discrete and continuous data in your own words. [Level:2] [CO2]
5. Calculate GM of 7,8,6,4,3,2,8,1 [Level:3] [CO3]
6. Compute the harmonic mean of 23,33,21,25,36,26. [Level:3] [CO3]
7. Compute mode of the following data: [Level:3] [CO3]
12, 15, 14, 15, 19, 20, 15, 14, 18, 12, 15, 14, 19.
8. In a distribution, the mean is 55, the mode is 45. Using the empirical relation between mean, median, and mode, calculate the median. [Level:3] [CO3]
9. Calculate range and its coefficient for the following data [Level:3] [CO4]

Marks	11	18	19	25	28	29	30
No. of Students	12	14	18	8	5	3	1

10. Calculate Q_1, Q_3 for the data given below. [Level:3] [CO4]

Height	152	158	162	165	169	178	190	195
No. of pupil	25	22	23	20	18	14	13	10

(Ceiling: 24 Marks)

Part B (Paragraph questions/Problem)

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

11. Discuss the key benefits and limitations of conducting a census when collecting data from a population. [Level:2] [CO1]

12. Describe various sources of secondary data. [Level:2] [CO1]

13. Draw a pie diagram showing the breakdown of a company's budget by department: [Level:3] [CO2]

Department	Marketing	Research	Operations	HR
Budget (\$)	3000	5000	7000	2000

14. In a survey about dietary habits, respondents provide feedback on their food preferences, such as vegetarian, vegan, omnivore, and pescatarian. [Level:3] [CO2]

- a) Classify the type of data represented by these responses.
b) Explain how this qualitative classification can inform dietary recommendations for different populations.

15. Calculate median. [Level:3] [CO3]

Class	1-3	4-6	7-9	10-12	13-15	16-18	19-20
Frequency	2	9	6	11	9	24	11

16. Calculate the arithmetic mean. [Level:3] [CO3]

Marks	20	30	40	50	60	70
No.of students	8	12	20	10	6	4

17. Compute the standard deviation for the following data set of monthly sales figures (in thousands): 12, 15, 19, 22, 25, 30, 38,42, 49, 50. [Level:3] [CO4]

18. Compute QD and its corresponding relative measure. [Level:3] [CO4]

Marks	10	20	30	40	50	60
No. of Students	4	7	15	8	7	2

(Ceiling: 36 Marks)

Part C (Essay questions)

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

19. Explain simple bar diagram. Also draw a bar diagram for the following sales data (in thousands) for a store over four months: [Level:3] [CO2]

Month	January	February	March	April
Sales	20	25	30	28

20. From the data given below, determine which series is more consistent. [Level:3] [CO4]

Classes	10-20	20-30	30-40	40-50	50-60	60-70
Series A	10	16	30	40	26	18
Series B	22	18	32	34	18	16

(1 × 10 = 10 Marks)
