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D1BST2502

Name: .....

Reg. No.: .....

FIRST SEMESTER FYUGP EXAMINATION NOVEMBER 2025

(Regular/Improvement/Supplementary)

MINOR

STA1MN103: INTRODUCTORY STATISTICS WITH R

Time: 2 Hrs. **Maximum Marks: 70**

M - Mark BL - Bloom's Taxonomy Level (1 to 6) CO - Course Outcome

Section A: Answer all questions. Each carries 3 marks.
Ceiling: 24 Marks

No.	Question	M	BL	CO
1.	Explain the following using a suitable example: a) Bivariate data b) Continuous data c) Nominal data	3	2	CO1
2.	Explain primary and secondary data with examples.	3	3	CO1
3.	Draw a bar chart to represent the following information: Year: 1952, 1957, 1962, 1967, 1972, 1977 No. of women M.P's: 22, 27, 34, 31, 22, 19	3	5	CO2
4.	Define histogram.	3	1	CO2
5.	What are the various types of graphs used for presenting a frequency distribution?	3	3	CO2
6.	Write the merits and demerits of mode.	3	2	CO3 CO4
7.	Write the properties of arithmetic mean.	3	3	CO3 CO4
8.	What do you mean by packages in R. Give two examples.	3	2	CO5
9.	How to draw a bar plot in R?	3	2	CO5
10.	State the method to draw pie diagram in R.	3	2	CO5

Section B: Answer all questions. Each carries 6 marks.
Ceiling: 36 Marks

No.	Question	M	BL	CO
11.	Classify the data based upon the characteristics of fact using suitable examples.	6	4	CO1

(PTO)

12.	Convert the following distribution into 'more than' cumulative frequency distribution and 'less than' cumulative frequency distribution Weekly wages: Less than 20 | Less than 30 | Less than 40 | Less than 50 | Less than 60 | Less than 70 Number of workers: 41 | 92 | 156 | 194 | 201 | 10	6	4	CO1
13.	Form a frequency distribution from the following data by exclusive method, taking 4 as the magnitude of class intervals. 10, 17, 33, 17, 20, 38, 15, 23, 34, 22, 27, 13, 11, 30, 10, 16, 12, 16, 19, 15, 20, 24, 18, 22, 36, 29, 24	6	6	CO1
14.	Draw less than ogive for the following data Class: 100 – 150 | 150 – 200 | 200 – 250 | 250 – 300 | 300 – 350 | 350 – 400 | 400 – 450 f: 15 | 28 | 30 | 35 | 11 | 9 | 5	6	5	CO2
15.	Find the median of the following data: Class: 0 – 5 | 5 – 10 | 10 – 15 | 15 – 20 | 20 – 25 f: 5 | 7 | 15 | 14 | 9	6	5	CO3 CO4
16.	You make a trip which entails travelling 900 km by train at an average speed of 60 km/h. 3000 km by boat at an average of 25km/h. 400 km by plane at 350 km/h. And finally, 15 km by train at 25 km/h. What is your average speed for the entire distance?	6	2	CO3 CO4
17.	Define Harmonic mean and discuss its merits and demerits. Under what situations would you recommend its use?	6	4	CO3 CO4
18.	Write the program in R for drawing a histogram for the following data: Class: 10 – 20 | 20 – 30 | 30 – 40 | 40 – 50 | 50 – 60 | 60 – 70 Frequency: 25 | 20 | 30 | 35 | 20 | 10	6	3	CO5

Section C: Answer any one question. Each carries 10 marks. (1 x 10 = 10 marks)

No.	Question	M	BL	CO
19.	Explain different types of bar diagrams with the help of suitable examples.	10	6	CO2
20.	Write about the objects in R. Using R commands, how will you enter the given matrix: $\begin{pmatrix} 1 & 2 & 7 \\ 4 & 3 & 6 \\ 6 & 3 & 9 \end{pmatrix}$	10	3	CO5