QP CODE: D1BST2402

Name: .....
Reg.No.: .....

FIRST SEMESTER FYUGP EXAMINATION NOVEMBER 2024

MINOR

STA1MN103 INTRODUCTORY STATISTICS WITH R

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

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

Section A — Ceiling Marks : 24

Answer all questions. Each carries 3 marks.

No.	Question	M	BL	CO
1.	Define variable. Give different types of data based on the number of variables	3	2	CO1
2.	Differentiate census and sampling method	3	3	CO1
3.	Define continuous frequency distribution	3	1	CO1
4.	Differentiate between histogram and frequency polygon	3	2	CO2
5.	How will you construct a histogram with unequal class interval	3	3	CO2
6.	Define arithmetic mean	3	1	CO3 CO4
7.	Define mode. Find the mode of the following distribution 2, 4, 3, 6, 2, 3, 4, 3, 3, 1, 9, 7, 8, 5, 2, 3, 3, 5, 5	3	4	CO3 CO4
8.	Define harmonic mean	3	5	CO3 CO4
9.	How to draw a scatterplot in R	3	1	CO5
10.	Explain the process of creating multiple graphs in R	3	5	CO5

Section B — Ceiling Marks : 36

Answer all questions. Each question carries 6 marks.

No.	Question	M	BL	CO
11.	Define statistics. Write the functions and limitations of statistics	6	5	CO1
12.	Represent the following data by suitable bar diagram	6	3	CO2

Year	1961	1971	1981	1991	2001	2011	2021
sales	900	854	1590	1050	4450	5142	3025

13. The area of the various continents of the world in millions of square miles are presented below

Continent	Africa	Asia	Europe	North America	Oceania	South America	USSR
Area (millions of square miles)	11.7	10.4	1.9	9.4	3.3	6.9	7.9

Represent the data by a pie diagram — 6 | 6 | CO2

14. Explain the construction of a frequency curve — 6 | 3 | CO2

15. The numbers 3.2, 5.8, 7.9, and 4.5 have frequencies x, x+2, x-3, and x+6 respectively. If the AM is 4.87 find the value of x — 6 | 2 | CO3 CO4

16. Explain the exporting of data in R — 6 | 1 | CO5

17. Write the function for computing cube of a number — 6 | 4 | CO5

18. Explain scatterplot in R — 6 | 2 | CO5

Section C

Answer any 1 question. Each carries 10 marks. (1x10=10 marks)

No.	Question	M	BL	CO
19.	Convert the following frequency distribution table into actual class. Then find the less than and more than cumulative frequency distribution	10	6	CO1

IQ score	31 - 39	41 - 49	51- 59	61 - 69	71 - 79	81 - 89	91 - 99
Frequency	2	4	3	4	8	8	1

20. Find GM and HM — 10 | 3 | CO3 CO4

Marks	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50
No. of students	5	7	15	25	8

***