

P P SAVANI UNIVERSITY

Second Semester of M.Sc. Examination

August 2022

SSDM7040 R Programming

10.08.2022, Wednesday

Time: 9:00 a.m. To 11:30 a.m.

Maximum Marks: 60

Instructions:

1. The question paper comprises of two sections.
2. Section I and II must be attempted in separate answer sheets.
3. Make suitable assumptions and draw neat figures wherever required.
4. Use of scientific calculator is allowed.

SECTION - I

- Q - 1 Answer the Following: (MCQ/Short Question/Fill in the Blanks) [05]
- (i) What are the different ways to assign a variable in R?
 - (ii) _____ command is used to install a package in R.
 - (iii) NA stands for _____.
 - (iv) Write a command to import a package in R.
 - (v) R is open source language (True/False).
- Q - 2 (a) Explain advantages and disadvantages of R programming language. [05]
- Q - 2 (b) What are the different data types/objects in R? [05]

OR

- Q - 2 (b) Differentiate between cast () and melt() [05]
- Q - 3 (a) Explain the concept of rbind with the help of suitable example. [05]
- Q - 3 (b) Write a program in R to find factorial of number. [05]
- Q - 4 Attempt any one [05]
- (i) Write a note on vectorization in R.
 - (ii) Write a note on R operators

SECTION - II

- Q - 1 Answer the Following: (MCQ/Short Question/Fill in the Blanks) [05]
- (i) What is p-value?
 - (ii) What is ggplot?
 - (iii) _____ function is used to import csv file in R.
 - (iv) Box plot is used to visualize _____.
 - (v) What is R²?
- Q - 2 (a) Explain linear regression model with the help of suitable example. [05]
- Q - 2 (b) What is Time series data? Explain the concept of autocorrelation used in time series data. [05]

OR

- Q - 2 (b) Explain the following chart types: [05]
- a) Scatter plot
 - b) Heat map
 - c) Bar plot
- Q - 3 (a) Explain the concept of IQR with suitable example. [05]
- Q - 3 (b) Explain clustering with the help of suitable example. [05]
- Q - 4 Attempt any one [05]
- (i) Write a note on 'Grammar of graphics'
 - (ii) Write a note on JSON file.
