



R20 Regulation
TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous, Accredited by NAAC with 'A' Grade)

Subject code: 3P3HB

B.Tech III Semester Regular Examinations, February 2022
R PROGRAMMING
CSE (DATA SCIENCE)

Maximum Marks: 70

Date: 25.02.2022 Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 List Data types in R.
- 2 List any three differences between vector and scalars.
- 3 Write the process of Creating Matrices.
- 4 Write a short notes on recursive lists.
- 5 How to Merge Two Data Frames in R?
- 6 Write the table() function in R Language.
- 7 What is a scope in R?
- 8 How to Replace specific values in a column in R Data Frame?
- 9 List the methods to read a value from the keyboard.
- 10 How to use 'R' to access data on the web.

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 List the inbuilt summary functions to apply on vectors. Create a vector and apply all functions to it. (10)
- OR
- 12 Elaborate on the process of Regression Analysis of Exam Grades. (10)
- 13 Describe the principles of Avoiding Unintended Dimension Reduction. (10)
- OR
- 14 How to Create Lists? Give some General List Operations and explain the methods for Accessing List Components and Values Applying Functions to Lists. (10)
- 15 Create a data frame with $a = c(1, 2, 3)$, $b = c(4, 5, 6)$, $c = c(7, 8, 9)$ and find the value of the following: (10)
 - a.) How do I select the c (4, 5, 6)?
 - b.) How do I select the 1?
 - c.) How do I select the 5?
 - d.) What is $df[, 3]$?
 - e.) What is $df[1,]$?
 - f.) What is $df[2, 2]$?

OR

- 16 Explain in detail about factors and Tables. (10)
- 17 Analyze the control structures with conditional statements in R with suitable examples. (10)
- OR
- 18 Explain any 5 basic math functions available in R with example. (10)
- 19 List out any 8 string manipulation functions and explain them. (10)
- OR
- 20 Explain about Creating and Customizing Graphs in R. (10)