



R20 Regulation **Subject code: 3P3HB**
TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
 (Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech III Semester Supplementary Examinations, February 2024
R PROGRAMMING
(CSD)

Maximum Marks: 70

Date: 26.02.2024 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)		CO	Bloom Tx
1	Explain Vectorized if-then-else in R?	1	L2
2	Write about vectors in R?	1	L1
3	Explain different matrix operation function in R?	2	L2
4	How to create Lists in R?	2	L2
5	Explain the importance of data frame?	3	L2
6	List out common functions used with Factors in R?	3	L1
7	Write about Boolean operators in R?	4	L1
8	Describe 3 math functions in R?	4	L1
9	Explain dnorm() function?	5	L2
10	Write R script to create a linegraph?	5	L2

Part-B

Answer All the following questions. (5X10M=50Marks)

11	(a) Explain different data structures in R?	5M	1	
	(b) Discuss about Common Vector Operations in R?	5M		L2
OR				
12	a) Illustrate the concept of recycling in vectors?	5M	1	L2
	(b) What effect does concatenate function has on vectors? Explain with an example?	5M		L4
13	(a) How to apply same functions to all rows and columns of a matrix? Explain with example?	5M	2	L3
	(b) Write R code to generate first n terms of a Fibonacci series?	5M		L2
OR				
14	How to create a list and demonstrate all the ways of accessing a list component?	10M	2	L3
15	Which matrix operations are applicable to data frames? Explain with examples?	10M	3	L2

	OR			
16	(a) Demonstrate finding the largest cells in a table? (b) What are the arguments in a call to table()?	5M 5M	3	L2
17	(a) How to create user defined function in R? How to define default values in R? Write syntax and examples? (b) Write about control statements in R?	5M 5M	4	L4 L2
	OR			
18	(a) What kind of tools does R has for simulation programming? (b) Write a R program to implement quick sort?	5M 5M	4	L2
19	(a) Explain functions for accessing the keyboard and monitor, Reading and writing files? (b) Describe R functions for Reading a Matrix or Data Frame From a File?	5M 5M	5	L2
	OR			
20	(a) Write about String-Manipulation Functions in R programming? (b) Discuss about Creating and Customizing Graphs in R programming?	5M 5M	5	L2