R20 Regulation *Subject code: 3P3HB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech III Semester Supplementary Examinations, December 2025

R PROGRAMMING

(CSE (DS))

Maximum Marks: 70 Date: 24.12.2025 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)		Marks	CO	BTL
1	Write R data structures.	2M	1	L1
2	Write syntax and example for adding vector elements.	2M	1	L1
3	Define Array.	2M	2	L1
4	Write general form of apply () for matrices.	2M	2	L1
5	What is the use of merge () function.	2M	3	L1
6	Define a Factor with syntax.	2M	3	L1
7	Define cumulative distribution functions (cdf).	2M	4	L1
8	Write about order () function.	2M	4	L1
9	Write syntax for scan () function.	2M	5	L1
10	Write about writing a single line from keyboard.	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	a) Write and explain real time applications of R. b) Explain the advantages and disadvantages of R.	5M 5M	1	L2
	OR			
12	Write R program to print sum of the numbers from 30 to 60 and squares of numbers in a given range.	10M	1	L2
13	Explain general list operation and accessing list components in list.	10M	2	L2
	OR			
14	a) Explain rbind(), cbind() for adding rows and columns to a matrix. b) Describe about naming matrix rows and columns.	5M 5M	2	L2
15	Compare and contrast between data frame and data table with a suitable example.	10M	3	L2
	OR			
16	Explain about Factor and write syntax how to convert a vector into Factor.	10M	3	L2

17	List the control statements in R Programming with syntax and example.	10M	4	L2
	OR			
18	Explain about Arithmetic and Boolean operations in R.	10M	4	L2
19	List and explain string manipulation functions in R.	10M	5	L2
	OR			
20	a) Explain about creation of a graph and abline with example. b) Differentiate about print () and cat ().	5M 5M	5	L2