R22 Regulation *Subject code:4E1AJ*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech I Semester Supplementary Examinations, June 2026

C PROGRAMMING FOR PROBLEM SOLVING

(Common to EEE, ECE, CSE, CSE(AI&ML,) & CSE(DS))

Maximum Marks: 60 Date: 23.06.2026 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 (10X1M=10 Marks)		Marks	CO	BTL
1.a	List out characteristics of an algorithm.	1M	1	L1
b	Define expression.	1M	1	L1
c	What are different types of searching?	1M	2	L1
d	What is recursive function?	1M	2	L1
e	Write the syntax for initialization of a pointer.	1M	3	L1
f	Write the usage realloc ().	1M	3	L1
g	Write the syntax for declaration of a structure?	1M	4	L1
h	List any five string handling functions and their meanings.	1M	4	L1
i	List any two differences between text file and binary file.	1M	5	L1
j	List file error handling functions with syntax.	1M	5	L1
	Part-B			
Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
2	What are the different types of Operators used in C language?	10M	1	L2
	OR			
3	Briefly discuss about conditional or selection statements used in C language.	10M	1	L2
4	Explain linear search with an example program.	10M	2	L2
	OR			
5	Write a C program to perform addition of two Matrices?	10M	2	L2
6	Explain briefly about dynamic memory allocation with suitable examples?	10M	3	L2
	OR			
7	Illustrate briefly about strlen (), strrev (), strcat (), strlwr (), strcpy () functions with suitable examples?	10M	3	L2
8	List out the differences between structures and unions?	10M	4	L2

	OR			
9	Explain briefly about pre-processor directives.	10M	4	L2
10	Write a C program to merge two file into a third file?	10M	5	L2
	OR			
11	Explain about file positioning functions in C.	10M	5	L2