



R22 Regulation

Subject code:4E1AJ

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech I Semester Supplementary Examinations, January 2026

C PROGRAMMING FOR PROBLEM SOLVING

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

Maximum Marks: 60

Date: 19.01.2026

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 (), strcmp (), strcat (), strcpy (), strncpy () 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