R22 Regulation *Subject code:4E2AB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech II Semester Supplementary Examinations, June 2026

C PROGRAMMING FOR PROBLEM SOLVING

(CE)

Maximum Marks: 60 Date:17.06.2026 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	CO1	L1
b	Define expression.	1M	CO1	L1
c	What are different types of searching?	1M	CO2	L2
d	What is recursive function?	1M	CO2	L3
e	Define pointer.	1M	CO3	L1
f	List String Handling Functions.	1M	CO3	L1
g	Write the syntax for declaration of a structure?	1M	CO4	L3
h	Define union with syntax.	1M	CO4	L1
i	What are the types of files?	1M	CO5	L2
j	List file error handling functions with syntax.	1M	CO5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
2	Briefly discuss about conditional or selection statements used in C language.	10M	CO1	L2
	OR			
3	What is meant by a control statement? What are the different types of control statements available in C?	10M	CO1	L2
4	Explain Binary search with an example program.	10M	CO2	L3
	OR			
5	Explain about different types of arrays in C with example.	10M	CO2	L2
6	Explain briefly about dynamic memory allocation with suitable examples.	10M	CO3	L4
	OR			
7	How pointers are useful for inter-function communication? Demonstrate a C program on it.	10M	CO3	L2
8	Explain about self-referential structures with an example program.	10M	CO4	L2
	OR			

9	Explain different types of pre-processor directives with examples.	10M	CO4	L2
10	What are the different file I/O operations and demonstrate them with an example program.	10M	CO5	L2
	OR			
11	Explain about file positioning functions in C.	10M	CO5	L2