



R22 Regulation
TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous, Accredited by NAAC with 'A' Grade)

Subject Code: 4E1AJ

B.Tech I Semester Supplementary Examinations, September 2023

C PROGRAMMING FOR PROBLEM SOLVING
(Common to EEE, ECE, CSE, CSE(AI&ML) & CSE(DS))

Maximum Marks: 60

Date:04.10.2023 Duration: 3 hours

PART-A

All the following questions carry equal marks

(10x1M=10 Marks)

1.
 - a. What is a variable? List out the types of variables in C?
 - b. List out the iterative statements?
 - c. What is meant by searching? What are the different types of searching?
 - d. Define an array? How to declare an array?
 - e. List any five string handling functions.
 - f. What is double pointer?
 - g. What is union?
 - h. Define a structure? Write the syntax for declaration of a structure?
 - i. What is the use of rewind()?
 - j. List file error handling functions.

PART-B

Answer All the following questions.

(10M X 5=50Marks)

2. Define an Algorithm? Explain the characteristics of an algorithm. Write an algorithm to find Fibonacci series of a given number. [10M]
(OR)
3. Discuss about selection statements in C. Briefly explain if statement types with examples. [10M]
4. Define a function. What are the different types of functions based on the arguments passed to it? [10M]
(OR)
5. Write a C program to perform matrix addition? [10M]
6. Write a C program that demonstrates string handling functions. [10M]
(OR)

7. What are the different memory allocation functions supported in C? Explain each of them with an example. [10M]

8. Write about Nested structures with suitable C program. [10M]

(OR)

9. Define structure. Write a C program to demonstrate structure? [10M]

10. What are the different file I/O operations? And demonstrate them with an example program. [10M]

(OR)

11. Differentiate text files and binary files. Explain about file opening modes with example. [10M]