



Regulation R20

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

Subject code: 3E1A1

B.Tech I Semester Supplementary Examinations, April 2023

C Programming for Problem Solving
(Common to ME, ECE, CSE, CSE(AI&ML), CSE(DS) & IT)

Maximum Marks: 70

Date: 15.04.2023 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)

1. Define an algorithm.
2. Distinguish while from do-while loop with its usage?
3. List out different storage classes.
4. Write the syntax for declaring an array?
5. What are the different memory allocation functions?
6. List the advantages of pointers.
7. Write the syntax for declaration of a structure?
8. List any five string handling functions and their meanings?
9. Define file.
10. List file error handling functions with syntaxes.

Part- B

Answer all the questions

(5X10M = 50M)

11. Explain different types of operators used in C language? [10m]
(OR)
12. What are decision control statements? Write a C program to demonstrate switch statement. [10m]
13. Define an array? Explain about different types of arrays in C with an example. [10m]
(OR)
14. Explain different Categories of User- defined functions with an example. [10m]
15. Write a short note on Call-by-reference. Develop a C program that swaps two numbers using pointers. [10m]
(OR)
16. Explain various string manipulation functions used in C with an example each. [10m]
17. What is meant by a structure? Define a structure named Employee and another structure named doj (data of joining) with members date, month, year as members, as the member of Employee structure. Develop a C program that read data into structure members using structure variables of Employee and doj structures. [10m]
(OR)
18. Write the syntax of strcmp() function. Write a C program to sort given list of names. [10m]
19. Develop a C Program that copies one file to another, replacing all lowercase characters with their uppercase equivalents. [10m]
(OR)
20. Write a C program to copy data from one file to another file in reverse order. [10m]