



R22 Regulation

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

Subject code:4E1AJ

B.Tech I Semester Regular Examinations, March/April 2023

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

Maximum Marks: 60

Date:12.04.2023 Duration: 3 hours

- Note: 1. This question paper contains two parts A and B.
2. Part A is compulsory which carries 10 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)

1. a List the no of data types.
- b Explain conditional operators.
- c Define an Array.
- d What is Scope and Extent?
- e Define pointer.
- f Give the example for string concatenation.
- g Define Structure.
- h Define bit fields.
- i Differentiate between binary file and text file.
- j What is the use of fseek () function?

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 2 What are bitwise logical operators? Explain about bitwise logical operators with suitable programming example. [10m]
OR
- 3 Discuss increment and decrement operators available in C and the rules associated with them. [10m]
- 4 Write a program to implement bubble sort. [10m]
OR
- 5 a) Explain in detail storage classes available in C language with examples. [5m]
b) Write a program to implement matrix multiplication using arrays. [5m]
- 6 a) Explain pointers to functions in detail. [5m]
b) Write a C program to find sum of the digits of any given positive integer. [5m]
OR
- 7 a) Illustrate different ways of declaring and initializing arrays and string variables. [5m]
b) Explain memory allocation functions in detail. [5m]

- 8 Differentiate between structure and union with example. [10m]
- OR
- 9 a) Is it possible to nest the structure? Explain with example. [5m]
b) Explain the command line arguments with an example. [5m]
- 10 Write a C program that reads contents of a file and displays them in capital letters if they are alphabets. [10m]
- OR
- 11 a) Write a C program to create a text file and read the text from the created file and count the number of characters present in the file. [5m]
b) Write a C program to read and display the contents of a file. [5m]