R20 Regulation *Subject code: 3E2AC*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B. Tech II Semester Supplementary Examinations, January 2024

C Programming for Problem Solving

(Common to CE & EEE)

Maximum Marks: 70 Date:29.01.2024 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)		CO	Bloom Tx
1	Convert the following binary number to decimal number 110110_2	CO1	L2
2	List out how the variables are declared in C?	CO1	L1
3	How to declare and initialize an array?	CO2	L1
4	Write about parameters passing methods?	CO2	L1
5	What is double pointer?	CO3	L1
6	Write the usage of realloc()?	CO3	L1
7	Demonstrate the usage of 'typedef'	CO4	L2
8	What are command-line arguments?	CO4	L1
9	Distinguish between text files and binary files?	CO5	L2
10	Explain fseek function.	CO5	L2
	Part-B		
Answer All the following questions. (5X10M=50Marks)			
11	a) Define an Algorithm? explain the characteristics of an algorithm. [5] b) Write a C program to find Fibonacci of a given number using while. [5]	CO1	L2 L3
	OR		
12	Explain about control statements? [10]	CO1	L2
13	a) Distinguish between Linear search and Binary search. [5] b) Define multi-dimensional array with suitable example? [5]	CO2	L3 L2
	OR		
14	Explain about LIFO with a sample program. [10]	CO2	L2
15	What is an array of pointer? How it is declared and initialized an array of pointers? Explain pointers to functions in detail? [10]	CO3	L1 L2
	OR		
16	What are the string manipulation functions? Explain their usage. [10]	CO3	L2

17	a) Explain self referential structures with a sample program. [5] b) Explain about bit fields. [5]	CO4	L2 L2
	OR		
18	Explain in detail about command line arguments and preprocessor commands with suitable examples. [10]	CO4	L2
19	What is meant by a binary file? Discuss about file positioning functions? [10]	CO5	L1
	OR		
20	Explain the file input and output functions with example program? [10]	CO5	L2