

2nd SEMESTER EXAMINATION, 2022 – 23
1st Year, B. Tech
PROGRAMMING FOR PROBLEM SOLVING

Duration: 3:00 hrs**Max Marks: 100**

Note: - Attempt all questions. All Questions carry equal marks. In case of any ambiguity or missing data, the same may be assumed and state the assumption made in the answer.

Q 1.	Answer any four parts of the following. a) Differentiate continue and break statement with the help of example. b) Differentiate text and binary file. c) Explain the loader and linker. d) Explain the concept of keyword and identifier with the help of example. e) What do you mean by string handling function? f) Described nested loop with the help of example.	5x4=20
Q 2.	Answer any four parts of the following. a) Write a C program to find the number is even or odd using switch case. b) Write a program to read and display n numbers using 1 D array. c) With the help of program, explain how to access the address of a variable using pointer. d) Write bubble sort methodology. e) Define control statements in c language. f) Differentiate while and do while loop.	5x4=20
Q 3.	Answer any two parts of the following. a) Explain the working of a computer system with the help of block diagram. And also define input and output devices with characteristics. b) Define the term algorithm with its properties. Write an algorithm to find the factorial of a number. c) Explain the various data types in c language with significance.	10x2= 20
Q 4.	Answer any two parts of the following. a) What do you mean by a recursive function? Write a program to find the factorial of a number using recursive function. b) What is an array and its types? Write a program to find the greatest number in a 2D array. c) Explain the difference between call by value and call by reference. Write a program to swap two numbers using parameter passing method.	10x2= 20
Q 5.	Answer any two parts of the following. a) What is sorting? Write step by step working of selection sort and give an appropriate example. b) Differentiate structure and union. Write a program to store and print the record of a student (name, roll no, marks and id) using structure. c) What is a file? write a program how to read a data from a file.	10x2= 20