CE/AM/CS/CYS/DS/EC/EEE/ME 115 (R-22)

Total No. of Questions : 10] [Total No.of Pages : 02

I/IV B. Tech. DEGREE EXAMINATIONS, AUGUST - 2023

First Semester

CE / AM / CS / CYS / DS / EC / EEE / ME

PROGRAMMING FOR PROBLEM SOLVING USING 'C'

Time : **Three Hours** Maximum : **70** Marks

Answer All Questions

Answer ONE question from each Unit. 5x14=70 M

UNIT - I

1. Define Algorithm and Flowchart ? Write an Algorithm and draw a flow chart for finding Biggest among the three given numbers.

(OR)

2. a) Define the Variable ? Explain the rules for constructing variable in C language.

   b) What is type conversion ? Explain two types of conversion with examples.

UNIT - II

3. Define Control Structure ? Explain different types of Control Structures with their syntaxes.

(OR)

4. a) Explain any 5 differences between While Loop and Do-While Loop with their examples.

   b) Write a calculator program in C language to do simple operations like addition, subtraction, multiplication and division. Use switch statement in your program.

UNIT - III

5. a) What is an Array ? Write a program to insert an element in the given array.

   b) Write a C program to perform the operation of addition of two matrices.

(OR)

6. a) Define String and explain various String Manipulation Functions.

   b) Write a program for reversing a string without using Library function.

P.T.O.

UNIT - IV

7. a) Write a program to find GCD and LCM of two numbers using concept of functions.

   b) Explain recursion and write a program to find nth term of Fibonacci series.

(OR)

8. a) What is pointer ? Explain how the pointer variable declared and initialized ?

   b) Explain about Dynamic Memory Allocation with an example.

UNIT - V

9. a) Describe structure declaration, initialization and accessing elements.

   b) Define and declare a structure to store date, which including day, month and year. Explain it with an example.

(OR)

10. a) Using File I/O write a program that prompts the user for file name and display the screen.

    b) What is a File ? Explain different modes of file operations.