I B. Tech I Semester Regular Examinations, July/August - 2021
PROGRAMMING FOR PROBLEM SOLVING USING C
(Common to EEE, ME, ECE, CSE, CSE-CS&T, EIE, IT, ECT, Auto Eng, Min Eng, Pet Eng, CSE-AI&ML, CSE-AI, CSE-DS, CSE-AI&DS, CSE-CS, CSE-IOT &CS Incl BCT, CSE-CS & BS, CSE-IOT, Food Eng, AI&DS, Pharma E)

Time: 3 hours   **Max. Marks: 70**

Answer any five Questions one Question from Each Unit
All Questions Carry Equal Marks

1. a) Explain the process of Creating, Compiling and Execution of a C Program. (7M)

   b) What is Constant? Explain different types of Constants available in C with examples. (7M)

Or

2. a) What is ASCII code and Unicode? Explain how they are used in C Language. (7M)

   b) What is an Expression? Write the priority and associativity of different arithmetic operators in C. Evaluate 2+4*5/2-2/4+2%5. (7M)

3. a) Explain various bitwise operators in C. (7M)

   b) Explain different Iterative statements in C with syntax, flowchart and example each. (7M)

Or

4. a) What is a flow control statement? Explain various Two-way Selective statements in C with example each. (7M)

   b) Write a C program that receives two integer numbers and one arithmetic operator as input and performs the arithmetic operation between two numbers and displays the result. (7M)

5. a) What is Array? Explain different types of arrays in c with an example each. (7M)

   b) Explain various String oriented I/O statements in C with an example each. (7M)

Or

6. a) Write a C Program to find number of characters in a given string without using library function. (7M)

   b) Write difference between structures and unions w.r.t memory allocation and accessing. (7M)

7. a) What is a pointer? Explain declaration, initialization and accessing of a pointer variable. (7M)

   b) Write a C program that access elements of 1D array using a pointer variable. (7M)

Or

8. a) Explain various dynamic memory allocation functions in C with an example each. (7M)

   b) Write a C program to reverse the given string using a pointer. (7M)

9. a) Explain Call by Value and Call by Reference with example each. (7M)

   b) Explain the following (7M)
   i) fprintf ( )   ii) Fscanf ( )   iii) Fscanf ( )   iv) fgets( )   v) Fputs ( )

Or

10 a) Write a C program to Display contents of a text file on console. (7M)

   b) What is recursion? Write a program to find the factorial of a given number using recursion. (7M)

||"|"|||"|||"""|