Code No : **20CS1T01**

R20

I B. TECH I SEMESTER REGULAR EXAMINATIONS, AUGUST - 2021
PROBLEM SOLVING USING C
(Common to ALL Branches)

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

Note: Answer **ONE** question from each unit **(5 × 14 = 70 Marks)**

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UNIT-I

1. a) List and explain the steps involved in creating and running a C program. [7M]

   b) Write a C program to demonstrate type conversion in arithmetic expression evaluation and trace it for a case study. [7M]

(OR)

2. a) List and explain various storage classes available in C. [7M]

   b) Demonstrate the conversion binary number to hexadecimal and vice versa using a case study. [7M]

UNIT-II

3. a) Write a program to read two numbers, then perform division and print the reminder using a switch case. [7M]

   b) Demonstrate the else if ladder with a C program. [7M]

(OR)

4. a) Write a program to demonstrate the working of shift operators. [7M]

   b) Write a program to find the big number among n given numbers using a loop. [7M]

UNIT-III

5. a) Write a program to read two matrices of order 3X3 and compute the transpose of (A+B) [7M]

   b) Demonstrate the user-defined data types with example case studies. [7M]

(OR)

6. a) List and explain various string handling functions with syntax and examples. [7M]

   b) Compare union and structure in memory allocation with a case study. [7M]
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UNIT-IV

7. a) Define Pointer and discuss pointer arithmetic with an example program. [7M]

   b) List and explain the processor commands. [7M]

(OR)

8. a) Explain about dynamic memory allocation with an example. [7M]

   b) Implement string concatenation using pointers. [7M]

UNIT-V

9. a) Describe about file opening modes in detail. [7M]

   b) Demonstrate call by value with an example program. [7M]

(OR)

10. a) i) Implement a C Program to read the contents from a file. [3M]
    ii) Implement a C Program to write the contents to a file. [4M]

    b) Implement a factorial of a number using recursion. [7M]

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