

I B. Tech I Semester Regular Examinations, Jan - 2020
PROGRAMMING FOR PROBLEM SOLVING USING C
(Common to ALL Branches)

Time: 3 hours

Max. Marks: 60

Note: Answer ONE question from each unit (5 × 12 = 60 Marks)

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**UNIT - I**

1. a) What are the two principle parts of the CPU ? What is the function of each part ? (6M)
- b) Write the importance of precedence and associativity ? Write the table for operator precedence. (6M)

**(OR)**

2. a) What is a library function? What are its uses in C programming ? (4M)
- b) What is a data type? Explain basic data types with their sizes. How the range of data stored can be extended ? (8M)

**UNIT – II**

3. a) Write a C program to print all the prime numbers between 1 to 100. (6M)
- b) What are the different ways of passing parameters to the function? Explain. (6M)

**(OR)**

4. a) Write a C program to print Fibonacci series using recursion. (6M)
- b) Explain about different repetitive statements with examples. (6M)

**UNIT – III**

5. a) What is string? Explain about declaration and initialization of string in 'C'. How strings are displayed with different formats? Explain with examples. (6M)
- b) Write a program to evaluate the average of the values in an array. (6M)

**(OR)**

6. a) Illustrate different ways of declaring and initializing arrays and string variables. (6M)
- b) Write a program to copy input to output by replacing of one or more blanks with a single blank in the given string. (6M)

**UNIT – IV**

7. a) Write a program to find whether the given number is Armstrong number or not by using command line arguments. (6M)
- b) Discuss about self referential structures with examples. (6M)

**(OR)**

8. a) Write short notes on unions within structures. (4M)  
b) Discuss dynamic memory management with pointers. (4M)  
c) Write about enumerated data types. (4M)

**UNIT –V**

9. a) Write a 'C' program to count number of words and lines in the given text file. (6M)  
b) Explain various standard library functions for handling files. (6M)

**(OR)**

10. a) Write a 'C' program to append the contents of one file to another. (8M)  
b) Differentiate between text and binary files with an example. (4M)

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