

Roll No.

Total Pages : 3

PMCA/M-20

10622

PROBLEM SOLVING THROUGH C

Paper–CS-DE-12

Time Allowed : 3 Hours]

[Maximum Marks : 80

Note : Attempt **five** questions in all, selecting at least **one** question from each Unit. Question No. **1** is compulsory. All questions carry equal marks.

Compulsory Question

1. (a) Define structured programming.
- (b) What is the difference between associativity and hierarchy of operators?
- (c) What is recursion?
- (d) What is dynamic memory allocation?

UNIT-I

2. (a) What is decision table? What are the different types of it? Discuss.
- (b) What is the difference between compiler, interpreter and assembler? Explain.

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3. (a) What is algorithm? Write the algorithm to sort the given integers in ascending order.
- (b) What is debugging? What are the different approaches to debugging? Discuss.

UNIT-II

4. (a) Differentiate between prefix and postfix ++ operators using suitable examples.
- (b) What is conditional operator? Explain using suitable example.
5. (a) What do you understand by bit-wise operators? Explain.
- (b) What are the different logical operators available in C language? Explain.

UNIT-III

6. (a) What is array? How is it initialized? Write a function in C to perform the binary search whereas an array of integer is passed as an argument.
- (b) What is a pointer? Explain the different operations that can be carried out on pointers.

7. (a) What is the use of register storage class? How is it different from auto storage class? Explain.
- (b) Write a function in C to find the sum of two matrices.

UNIT-IV

8. (a) What is a string? Write your own function in C to compare two strings.
- (b) What is union? Explain its use giving suitable example.
9. (a) Write a program in C to count the frequency of different vowels in it.
- (b) What is struct? Explain the use of array of struct using suitable examples.