

[Total No. of Questions - 9] [Total No. of Printed Pages - 2]
(2064)

14837

MCA 1st Semester Examination
Programming Methodology C & C++ (N.S.)
MCA-101

Time : 3 Hours

Max. Marks : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Select one question from Section A, B, C and D. Section E is compulsory.

SECTION - A

1. What are Top Down and Bottom Up approaches? Explain with the Basic flow diagram and give examples of each. Discuss the differences between Assembler, Compiler and Interpreter. (12)
2. Explain the various Library functions in C & C++. Write a Program in C to check a year is Leap year or Not. Discuss various types of Data types used in both C & C++. (12)

SECTION - B

3. What are Control Statements? Whether "If-else" is a Loop or not ? If not explain why? (12)
4. Explain the difference between getch() and return() statements. Write a program of FIBONACCI Series and Palindrome using C or C++. (12)

SECTION - C

5. Discuss the Various advantages and disadvantages of pointers over Arrays. Write a program in C++ "Multiples of Two Matrices using pointer Notation". (12)

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6. Explain the differences between Linked lists and pointers. Write any program to declare the Marks of 10 Students of three various subjects through. Also, mark the grades such as 'A', 'B', 'C' and 'Fail' for some defined conditions (take appropriate data). (12)

SECTION - D

7. Write a program to calculate the Employee's Salary and Leave record (C Leave , Medical leave and Earned leave) by using structures. (12)
8. What is a File? Discuss file handling features and its advantages. Also, Write a program which creates a file and write strings to it and read its contents back from this file. (12)

SECTION - E

9. Define the following:
- (a) Define LOOP.
 - (b) Function.
 - (c) Calloc()
 - (d) What is the advantage of using Recursion?
 - (e) Relational operators.
 - (f) Local and Global Variables.
 - (g) Define Data Files.
 - (h) 2-D array.
 - (i) Interpreter.
 - (j) Low level language.
 - (k) Float and Double.
 - (l) Break statement. (1×12=12)