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MCA/D-17
PROGRAMMING IN C
Paper: MCA-14-11

Time: Three Hours   Maximum Marks: 80

Note: Attempt five questions including No. 1 which is compulsory. All questions carry equal marks.

Compulsory Question

1. Answer the following in short :
   (a) What do you understand by short circuit operations?

   (b) What is the difference between prefix and postfix++ operator?

   (c) What do you understand by header file?

   (d) What is the difference between write mode and append mode to open a file?

   (e) What is dynamic memory allocation?

Unit-I

2. (a) What do you understand by associativity of operators? Discuss the operators in C having right to left associativity.

   (b) What are the different types of Integers in C? Discuss.

3. (a) Compare the different storage classes in C on the basis of different parameters like scope, life time, default value etc.

   (b) Differentiate between << and >> operators using suitable example
   .

Unit-II

4. (a) What is recursion? Write a program in C to perform binary search using recursion.

   (b) What is the difference between entry controlled and exit controlled loops? Explain using suitable examples from C language.

5. Write a program in C to print the numbers from M to N excluding prime numbers where M and N are two integers and M is less than N. Make the use of function and continue statement.

Unit-III

6. (a) What is pointer? Write a note on pointer arithmetic.

   (b) Write a function in C to replace all odd numbers by zero and even by one in a two dimension array.

6. What is a string? Write a function to count the total number of vowels and consonants in a string.

Unit-IV

8. (a) What is the difference between a struct and union? Explain using suitable examples.

   (b) What is macro? What is the use of them? Discuss.

9. What is a file? Write a program in C to replace all lower case character by upper case in a text file.