

Roll No.

Total Pages : 3

MCA(8-9)/D-14

10366

**COMPUTER FUNDAMENTALS AND
PROBLEM SOLVING USING C**

Paper-MCA-101

Time Allowed : 3 Hours]

[Maximum Marks : 80

Note : Attempt five questions in all, selecting at least one question from each Unit. Q. No. 1 is compulsory.

Compulsory Question

1. (a) What is the difference between signed and unsigned character?
- (b) What is the difference between keywords and reserve words?
- (c) What are the different types of errors?
- (d) Discuss the strcpy() library function.
- (e) What is associativity? What are the operators having right to left associativity?
- (f) How do you initialize an array?
- (g) When is it essential to write the prototype of a function in C?
- (h) What is the difference between int and long int?

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UNIT-I

2. What is Flow chart? What are the different symbols used in it? Draw a flow chart to perform bubble sort. 14
3. What is Structured programming? What are the advantages of structured programming? Explain. 14

UNIT-II

4. What do you understand by Hierarchy of operators? Draw a table illustrating the hierarchy of operators in C language. 14
5. What is the difference between bubble sort and selection sort? Write a program in C to perform selection sort. 14

UNIT-III

6. (a) What is the difference between break and continue statement? Write a program to generate prime numbers upto 200 excluding those which are lying between 30 and 50. 7
- (b) Discuss following storage classes in terms of life, scope and the initial value using suitable examples :
 - (i) Automatic storage class
 - (ii) Static storage class
 - (iii) Register storage class 7

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7. What is the difference between for loop and while loop? Write a program to count the number of vowels and consonants in a string. 14

UNIT-IV

8. (a) What is an Array? What is the difference between one-dimensional and two-dimensional array? Discuss. 7
- (b) Write a program to compute the trace of a matrix using function. 7
9. (a) What do you understand by pointers? Write a function in C to swap the value of two integer variables. 7
- (b) What is Life? Write a function in C to count the number of characters in a file. 7