

**1256/A12**

**MAY 2008**

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**PROGRAMMING IN C**

Time : Three hours                      Maximum : 100 marks

**PART A — (6 × 5 = 30 marks)**

Answer any **SIX** questions.

1. What are the steps in any program development?
2. Write a C program to illustrate the initialization of variables.
3. Write a program to find the factorial of non-negative integer using function.
4. Explain the function prototyping.
5. Define array and explain the initialization of one dimensional array.
6. Explain any three string handling functions.
7. Explain array of structure with example.
8. Explain bit field structure with suitable example.

9. Explain an five file open-modes with their meaning.

10. What are the typical file error situation?

PART B — (4 × 10 = 40 marks)

Answer any FOUR questions.

11. Explain an ten character type constants.
12. Explain integer and real arithmetic with examples.
13. Write a C program to display the charge for the units consumed with the following conditions:

Consumption of units	Rate of Charge
< 250	Minimum charges Rs. 25
0-100	Rs. 0.50 / unit
100-200	Rs. 125 + Rs. 1.50/unit for excess of 200
200-400	Rs. 425 + Rs. 3.00/unit for excess of 400

14. Write a function to find the power of numbers using function.

15. Write a program that sorts a set of given numbers in ascending order.

16. Discuss structure with in structure with an example.

PART C — (2 × 15 = 30 marks)

Answer any TWO questions.

17. Explain various types of operators available in C with examples.
18. (a) Explain recursion with suitable programming example.  
(b) Write a program to illustrate string input and output using pointers.
19. (a) Explain a structure with its initialization  
(b) Write a c Program for I/O operations using formatted I/O functions.