1885

Computer Programming
(101105)

P. Pages : 2

Time : Three Hours

Max. Marks : 80

Instructions to Candidates :
1. Do not write anything on question paper except Seat No.
2. Answersheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Attempt **any two** subquestions from each unit.
5. Assume suitable data wherever necessary & state the assumption made.
6. Write proper comments for C and C++ programs.
7. Use of non - programmable calculators is permitted.

UNIT - I

1. a) Explain the four basic data types in C ? What are the different types of qualifiers ? **8**

   b) Write a program in C to compute volume of cylinder & rectangular box. **8**
   Given, for cylinder, $V_1 = 3.14 * r * r * h$
   for rectangular box $V_2 = l * b * h$.

   c) i) Explain structure of a C - program ? **4**

      ii) Write a program in C to find average of three floating point numbers ? **4**

UNIT - II

2. a) Explain conditional branching statements in detail. **8**

   b) Write a program in C to print given number is prime or not. **8**

   c) i) Explain the concept of nested loops. **4**

      ii) Write a program in C to find smallest number among three numbers. **4**

UNIT - III

3. a) What is array ? Illustrate initialization of one - dimensional and two - dimensional array with an example. **8**

b) Write a programming in C to find smallest and largest number in a array. **8**

c) i) Show storage of one - dimensional array in memory with the help of diagram ? **4**

ii) Write a program in C to copy one string into another using string library function ? **4**

UNIT - IV

4. a) Explain the terms in details. **8**

    i) Function prototype.

    ii) Function definition.

    iii) Function call.

    iv) Return value.

b) Write a program in C to check number is odd / even by using function. **8**

c) i) Explain structures in C with example. **4**

ii) Write a program to demonstrate a function with call by value ? **4**

UNIT - V

5. a) Explain use of scope - resolution operator in C++ in details with example. **8**

b) Write a program in C++ to find smaller among two numbers using class and object. **8**

c) i) How the data and functions are organized in object oriented programming languages. **4**

ii) Write a program in C++ that uses class where member functions defined outside of a class ? **4**

****