

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY****PDDC - SEMESTER-I • EXAMINATION – SUMMER • 2014****Subject Code: X10002****Date: 19-06-2014****Subject Name: Computer Programming and Utilization****Time: 02:30 pm - 05:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

**Q.1 (a)** Answer the following questions.1) Give difference between hardware and software. **03**2) Draw flow chart for logic to find maximum numbers from given 100 numbers. **04****(b)** Explain concepts of recursive functions and implementation of these in 'C' language. **07****Q.2 (a)** Write a C language program to print the tables of squares of 1 to 25. **07****(b)** Write a C language program to print the following pattern. **07**

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1
2 2
3 3 3
4 4 4 4
5 5 5 5 5

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**OR****(b)** Explain concept of constructors and destructors in C++ with suitable example. **07****Q.3 (a)** Write a C language program to calculate no. characters in a input string. **07****(b)** Explain concept of function with various types of parameters. **07****OR****Q.3 (a)** Write a C language program to arrange array of 10 numbers into ascending order. **07****(b)** Explain arrays within structures with example. **07****Q.4 (a)** Explain difference between structure and union. **07****(b)** Explain principle of Object oriented programming. **07****OR****Q.4 (a)** Explain concepts of pointers with suitable example. **07****(b)** Write a C++ program to calculate factorial of first ten numbers using recursive function.**Q.5 (a)** Explain concept of nesting of member functions for C++. **07****(b)** Explain in short for C++. **07**

- 1) Friend function,
- 2) Const member function.

**OR****Q.5 (a)** Explain in short for C++. **07**

- 1) Classes
- 2) Objects.

**(b)** Write a C++ program to find the minimum number from the 10 numbers with the help of class and object. **07**

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