

GUJARAT TECHNOLOGICAL UNIVERSITY**PDDC SEM-I Examination-Dec-2011****Subject code: X10002****Date: 27/12/2011****Subject Name: Computer Programming & Utilization****Time: 10.30 am -1.00 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) What is pointer? Write a program to do swapping of two elements using pointers. **07**
 (b) What is difference between 'for' loop and 'while' loop. **07**
 Write a program using 'for' loop.

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 2 2
 3 3 3
 4 4 4 4

- Q.2** (a) Draw the Block Diagram of Computer Architecture and explain each block with its functions. **07**
 (b) How to define and declare Single dimensional array. Write a C program to arrange single dimensional array of 5 elements in Ascending order. **07**

OR

- (b) What is the difference between 'while' loop and 'do while' loop. Write a program using 'while' loop to reverse the digits of the number. For example the number is 12345 should be printed as 54321. **07**
- Q.3** (a) Write a Program to demonstrate the "call by value" and "call by reference" concept in C **07**
 (b) Describe various string handling operation using sample 'C' codes **07**

OR

- Q.3** (a) List out the categories of functions. Explain any one category with example. Also Explain difference between unions and structures. **07**
 (b) Explain Nesting of IF...ELSE statement and the ELSE.....IF ladder with example. **07**

- Q.4** (a) Explain the usage of constructor and destructor in C++. Write a C++ program to demonstrate the use of Constructor and Destructor. **07**
 (b) Explain features of object oriented programming language **07**

OR

- Q.4** (a) Write a C++ Program to demonstrate the operators' hierarchy **07**
 (b) Give comparison of Static Memory Allocation and Dynamic Memory Allocation with a code snippet. **07**

- Q.5** (a) What is Friend function? Write a C++ Program to show usage of Friend Function. **07**
 (b) Describe various types of Inheritance **07**

OR

- Q.5** (a) Write short note on Polymorphism **07**
 (b) Write a C++ program to demonstrate copy constructor **07**
