Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
PDDC - Ist Semester–Examination – May/June- 2012
Subject code: X10002
Subject Name: Computer Programming & Utilisation

Date:30/05/2012   Time: 10:30 am – 01:00 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)** Give the difference between Procedural Programming & Object Oriented Programming. **07**

(b) What is flow-chart? Give the limitation of flow-chart. Also draws flow-chart to solve 1! +2! +…. +n! **07**

Q.2 **(a)** Explain various types of loops available in C with example. **07**

(b) Write a 'C' program which displays the Pascal's triangle. **07**

OR

(b) What is constructors and destructors? Give the characteristics of constructors. **07**

Q.3 **(a)** Draw a block diagram of computer & explain each block. **07**

(b) Describe the logical operator, assignment operator & unary operator in C. **07**

OR

Q.3 **(a)** List the various types of constants in 'C' with examples **07**

(b) Explain operator precedence & associativity in C with examples. **07**

Q.4 **(a)** Explain the difference between "call by value" & "call by reference" with suitable example. **07**

(b) Define the following terms: **07**
   1) Operating system   2) Compiler
   3) Application software   4) System software
   5) class   6) Structures   7) Unions

OR

Q.4 **(a)** Write a program to find the smallest number from the two numbers with the help of class and object. **07**

(b) Compare static memory allocation and dynamic memory allocation. **07**

Q.5 **(a)** Describe the features of Object Oriented Programming. **07**

(b) Write a C program which finds the square of numbers stored in the array and the average of elements in array. **07**

OR

Q.5 **(a)** What is pointer? How to initialize it & how it is different from array? **07**

(b) Write a program in C to count number of positive, negative and zero elements from 3×3 matrix. **07**

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