

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 draw flow-chart to solve $1! + 2! + \dots + n!$ **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 are 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**
