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: 1) Operating system 2) Compiler 3) Application software 4) System software 5) class 6) Structures 7) Unions	**07**
		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**

****