Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–IV • EXAMINATION – SUMMER • 2014

Subject Code: 140705 **Date: 25-06-2014**

Subject Name: Object Oriented Programming with C++

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)**	Define with examples (1) Object (2) Macro (3) Binary file (4) Portability	**08**
	(b)	Write the basic structure of a C++ program with all necessary blocks.	**06**
Q.2	**(a)**	Differentiate procedural programming with object oriented programming	**07**
	(b)	What is call and return by reference? Explain with example.	**07**
		OR	
	(b)	What is inline function? Where and how it is useful in C++? Give an example.	**07**
Q.3	**(a)**	Discuss the use of static data members and static member functions with examples.	**07**
	(b)	What is a constructor? Explain types of constructors with examples.	**07**
		OR	
Q.3	**(a)**	Explain the importance of Inheritance. List its types and explain any one with example.	**07**
	(b)	Explain the use of destructor in C++. Discuss its features.	**07**
Q.4	**(a)**	Write a C++ program that overloads + operator to add two complex numbers.	**07**
	(b)	List ios functions with equivalent manipulators in C++. Explain any one manipulator with example.	**07**
		OR	
Q.4	**(a)**	Write a C++ program that creates inventory of items by storing item_code, item name and qty. Access the data using pointers.	**07**
	(b)	What is polymorphism? How can we implement it in C++?	**07**
Q.5	**(a)**	Attempt **ANY TWO** (1) List the file mode parameters. (2) Explain try….catch….throw (3) Components of STL.	**08**
	(b)	Attempt **ANY THREE** (1) Structure of Template class. (2) List error handling file functions in C++ (3) Protected data members. (4) Define friend function	**06**

****