

**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 **08**  
               (1) Object (2) Macro (3) Binary file (4) Portability
- (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** **08**  
               (1) List the file mode parameters.  
               (2) Explain try....catch....throw  
               (3) Components of STL.
- (b)** Attempt **ANY THREE** **06**  
               (1) Structure of Template class.  
               (2) List error handling file functions in C++  
               (3) Protected data members.  
               (4) Define friend function

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