

GUJARAT TECHNOLOGICAL UNIVERSITY**M. E. - SEMESTER – II • EXAMINATION – SUMMER • 2013****Subject code: 1720109****Date: 07-06-2013****Subject Name: Object Oriented Programming****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 the inheritance and polymorphism and list their importance in object oriented programming. **07**
(b) Explain the following: (1) Objects and classes (2) Benefits of OOP. **07**
- Q.2** (a) Explain the Windows Application Framework and list the important classes in its class library. **07**
(b) Write an object oriented program in Java to find the smallest from an array of 10 elements. **07**
- OR**
- (b) Define a class to represent bank account with name of holder and balance with necessary constructors and methods. Use it to show the balance when name is given. **07**
- Q.3** (a) What is a role of constructors? What are different types of constructors in Java? Give examples and show their use. **07**
(b) Assume that base class represents the point having x and y coordinates. Extend it to represent 3D point with z coordinate and use to in main program. **07**
- OR**
- Q.3** (a) What is an interface? Give an example. How it differs from class? Show the use of interface. **07**
(b) Explain the various types of exceptions in Java and their handling. **07**
- Q.4** (a) What is an event? Explain the Java event handling with appropriate example. **07**
(b) Explain the various thread methods and give the importance of thread priorities. **07**
- OR**
- Q.4** (a) Explain the following in Java : (1) Package (2) Applet. **07**
(b) List and explain the use of Layout managers in Java. **07**
- Q.5** (a) Explain the use of OOP in Web Application development with example. **07**
(b) Write a GUI program in Java to find the larger of two numbers. **07**
- OR**
- Q.5** (a) Give and explain the notations used in software analysis. **07**
(b) Write a Java program to read and display the contents of a text file. **07**