

GUJARAT TECHNOLOGICAL UNIVERSITY**MCA - SEMESTER-III • EXAMINATION – WINTER - 2013****Subject Code: 2630002****Date: 09-12-2013****Subject Name: Fundamentals of Java Programming****Time: 02:30 pm TO 05:00 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) i)** Define any three features of object oriented programming language. **03**
- iii)** What is the use of following java keywords: **04**
- static, transient, final, protected
- (b) i)** Why Java is so popular? **03**
- ii)** Differentiate String and StringBuffer classes. **04**
- Q.2 (a) i)** What makes java a robust programming language? **03**
- ii)** Discuss initializer blocks and class initializer blocks. **04**
- (b)** What is an abstract class? What is an interface? Write a java program to explain the need of these concepts. **07**

OR

- (b)** What do you mean by method overriding? Why it is needed? Explain it by giving an appropriate example. **07**

- Q.3 (a) i)** What is an Exception? Explain exception handling with example. **03**
- ii)** Write a java program to read the numbers stored in a file and print the sum of these numbers on console. **04**
- (b)** Briefly discuss enum type giving an example. **07**

OR

- Q.3 (a) i)** What are checked exceptions in java? Write a program to explain this using customized exception. **03**
- ii)** Write a java program to display contents of text file on console if file exist. Provide file name from command-line argument. **04**
- (b)** Briefly discuss the need of nested types by giving an example. **07**
- Q.4 (a)** What is Thread? How thread is created in Java? Explain with example. **07**
- (b)** Create a class called product, each product has a name, code and price. Create a vector of product objects. Write a program to add, modify, delete product from vector. After above operations on vector, vector

elements should be displayed.

OR

Q.4 (a) Explain the life cycle of Thread. Specify some important methods of Thread class. **07**

(b) What is collection framework? Discuss Vector, HashTable and Enumeration with their methods. **07**

Q.5 (a) Explain event delegation model with an example. **07**

(b) What is Layout Manager? Explain the different types of layout in details. **07**

OR

Q.5 (a) What is an Applet? Explain the life cycle of an Applet with example **07**

(b) What are listeners? Explain the need of anonymous inner class with an example in event handling. **07**
