

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER-V • EXAMINATION – WINTER 2013**

**Subject Code: 150704****Date: 02-12-2013****Subject Name: Object Oriented Programming with Java****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) List and explain various features of java. **07**  
(b) Explain the words super, static, final and this with the help of example. **07**

- Q.2** (a) Explain constructor and finalizer with the help of example. **07**  
(b) Compare String with StringBuffer. Also write a program to count occurrence of character in a string. **07**

**OR**

- (b) Compare List, Set and Map interfaces. Also compare ArrayList, TreeSet and HashMap classes in java. **07**

- Q.3** (a) Explain Overloading and Overriding with example. **07**  
(b) What is Layout? Explain various Layout Managers in java. **07**

**OR**

- Q.3** Write a note on (Any two) **14**  
(a) JavaBeans  
(b) Swing in JAVA  
(c) Network programming in Java

- Q.4** (a) Draw and explain lifecycle of Applet. **07**  
(b) Write a program to count the total no. of chars, words, lines, alphabets, digits, white spaces in a given file. **07**

**OR**

- Q.4** (a) Draw and explain life cycle of thread. Also list and explain various methods of thread. **07**  
(b) Write a java application that has three Buttons labeled Red, Green, Blue & on clicking the background color should change accordingly & have a label displaying the color selected. **07**

- Q.5** (a) What is Exception? Give some of Built-in exceptions in java. Also give difference between throw and throws. **07**  
(b) Write an application that creates and starts three threads. Each thread is instantiated from the same class. It executes a loop with 10 iterations. Each iteration displays string "HELLO", sleeps for 300 milliseconds. The application waits for all the threads to complete & displays the message "Good Bye...". **07**

**OR**

- Q.5** (a) What is package? Explain steps to create package with example. **07**  
(b) Write an application that executes two threads. One thread displays "Good Morning" every 1000 milliseconds & another thread displays "Good Afternoon" every 3000 milliseconds. Create the threads by implementing the Runnable interface. **07**

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