GUJARAT TECHNOLOGICAL UNIVERSITY
MCA - SEMESTER–III • EXAMINATION – SUMMER 2013

Subject Code: 630002   **Date: 13-05-2013**

Subject Name: Fundamentals of Java 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)** Answer the following questions.

1. Define following terms.   **03**
     I. Bytecode   II. Deamon Thread   III. Event

2. public class Test {   **01**
        static int age;
        public static void main (String args []) {
        age = age + 1;
        System.out.println("The age is " + age);
        } }
    Give the output.

3. Using a FlowLayout manager, which is the correct way to   **01**
     add elements to a container:
     I.   add(component);   II. add("Center", component);
     III. add(x, y, component);   IV. set(component);

4. What class must an inner class extend: **01**
     I.   The top level class   II. The Object class
     III. Any class or interface IV. It must extend an interface

5. Which of the following, are valid return types, for listener   **01**
     methods:
     I.   boolean   II. the type of event handled
     III. void   IV. Component

(b) Answer the followings.   **07**

1. We can make constructor final.
     I. True   II. False

2. _____class is the superclass for every class?

3. MouseMotionListener fire events when mouse is
     _____ or _____.

4. The _____method sets background color of
     an applet.

5. Can you declare the main method as final?
     I. Yes   II. No

6. The expression str.length returns the length (number of
     characters)   contained   in   str,   a   String   object.
     I. True   II. False

7. Is null a keyword in java?
     I. Yes   II. No

Q.2 **(a)** Answer the Following Questions.

    1. public class Test   **02**

```
public class Test
{
   public static void main(String args[])
   {
     if ( "string".toUpperCase() == "STRING")
       System.out.println("Equal");            else
       System.out.println("Not Equal");
   } }
```
Give the output.

2. What would be the result of executing the following code, using the **02**
parameters 5 and 0 for a and b respectively:

```
public void divide(int a, int b) {

try {
int c = a / b;
} catch (Exception e) {
System.out.print("Exception ");
} finally {
System.out.println("Finally");
}
```

3. Differentiate String and StringBuffer class. Discuss substring **03**
    method of String class with proper example.

    (b) Define Thread. Explain the importance of Synchronization with example. **07**

<div align="center">OR</div>

    (b) Discuss about initializer blocks and class initializer blocks. **07**

Q.3 **(a)** Define package. State the steps to create and import a package. **07**
    (b) Define interface. How does it overcome the problem of java's multiple **07**
inheritance?

<div align="center">OR</div>

Q.3 **(a)** Explain enum type with example. **07**
    (b) What is Applet? Discuss applet tag with its different attributes. **07**

Q.4 **(a)** Differentiate final and finally with example. **07**
    (b) What is Layout? List different layouts and explain Card Layout with **07**
example.

<div align="center">OR</div>

Q.4 **(a)** Define exception. Differentiate throw and throws with example. **07**
Q.4 **(b)** What is collection framework? Discuss Map interface with example. **07**

Q.5 **(a)** AWT components are known as heavy weight component? Elaborate. **07**
    (b) Define file. Discuss any six methods of file class. **07**

<div align="center">OR</div>

Q.5 **(a)** Explain Event Delegation Model with example. **07**
    (b) Explain formatter and scanner class with example. **07**

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