Sample Test Paper -I

Course Name : Computer Engineering group

Course Code : CO/CM/IF/CW/CD

17515

Semester   : Fifth for CO/CM/IF/CW and Sixth for CD

Subject Title : Java Programming

Marks   : 25   **Time:1 hour**

Instructions:

1. All questions are compulsory

2. Illustrate your answers with neat sketches wherever necessary

3. Figures to the right indicate full marks

4. Assume suitable data if necessary

5. Preferably, write the answers in sequential order

Q1. Attempt any three.   **3x3=9**

a) Write how finalize() method helps in garbage collection procedure of Java.
b) State use of 'this' keyword with one example.
c) Write a program to input a number and print sum of its digits.
d) Write the syntax and use of following methods:
   1) charAt() 2)equals() 3) indexOf()

Q. 2 Attempt any two.   **2x4=8**

a) State the necessity of StringBuffer class & write the use of 1) setCharAt() 2) append() methods.
b) Describe following features of Java 1) Object oriented 2) Platform independent.
c) Distinguish between array and vector w.r.t. following parameters
   1) Flexibility in size 2) storage space 3) data types of elements 4) methods to access.

Q3. Attempt any one.   **1x8=8**

a) Write a program to declare class 'product' with data members as productid, productname, rate and quantity. Accept data for 5 products and display details along with their cost.
b) What is constructor? How to declare it? Write a program to show how constructor can be overloaded?
c) State types of inheritance. Write a program to show method overriding.

Sample Test Paper-II

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Semester   : Fifth for CO/CM/IF/CW and Sixth for CD

Subject Title : Java Programming

Marks   : 25   **Time:1 hour**

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Q1. Attempt any THREE.   **3x3=9**
   a) How to create and access package in Java.
   b) What is exception? Give names of four built in exceptions.
   c) State the use of following methods of Thread class :
               1) wait()   2) notify()   3) sleep()
   6. Give the purpose of each argument used in drawArc().

Q. 2 Attempt any TWO.   **2x4=8**
   a) Debug the following code and rewrite:
       import java.awt.*;
      public class xyz extends Applet
      {
         String s="Hello world"
         public paint(Graphics g)
         {
            g.drawString(s);
         } }
   b) What is thread? Write default priority values and method to change them.
   c) Write a program to copy contents of one file to another file using character stream classes.

Q3. Attempt any ONE.   **1x8=8**
   a) Write a program to create two threads. One to print numbers from 1 to 20 and other to print
      numbers from 51 to 70 with a delay of 100 ms after each number.
   b) Write syntax and use of following methods :
      1) drawString () 2) drawOval() 3)drawRect() 4)drawPolygon()
   c) Write with example, how multiple inheritance is achieved in Java.

Scheme – G
Sample Question Paper

Course Name : **Computer Engineering Group**

Course Code : **CO/CM/IF/CW/CD**

Semester   : **Fifth for CO/CM/IF/CW and Sixth for CD**

Subject Title : **Java Programming**

17515

Marks   : **100**   Time: **3 Hrs.**

Instructions:

1. All questions are compulsory

2. Illustrate your answers with neat sketches wherever necessary

3. Figures to the right indicate full marks

4. Assume suitable data if necessary

5. Preferably, write the answers in sequential order

Q1 (a) Attempt any three of the following: **3x4=12**

a) List eight data types available in java with their storage sizes in bytes.

b) Write any four methods of file class with their use.

c) Describe typecasting with one example.

d) Write use of following keywords w.r.t. exception handling :

   1) try 2) catch 3) finally 4) throw

Q1(b) Attempt any one of the following: **1x6=06**

a) What is meant by parameterized constructor? Describe with program.

b) Write impact of access specifiers public, private and protected on packages in java.

Q2. Attempt any two of the following: **2x8=16**

a) Write a program to add 2 integer, 2 String and 2 Float objects to a vector. Remove element specified by the user and display the list.

b) What is meant by an interface? State its need and write syntax and features of an interface.

c) Write a program to design an applet which accepts 2 numbers as parameters using <PARAM> tag and display addition of squares of those numbers.

Q3. Attempt any four of the following: 4x4=16

a) Write syntax and use of following wrapper class methods :

     1) valueOf() 2) intValue()

b) Write a program to print first 10 numbers from a Fibonacci series.

c) What is the use of Stream classes? Write any 2 methods of FileReader class.

d) Describe following attributes of <applet> tag :

    1) codebase 2) code 3) width 4) alt

e) State the use of 'final' keyword w.r.t. inheritance with one example.

Q4a). Attempt any three of the following: 3x4=12

a) What is meant by instance variable and static variable? Describe with example.

b) Describe the use of 'throws' with suitable example.

c) State the syntax and describe working of 'for each' version of 'for' loop with one example.

d) Write syntax and function of following methods of Date class :

    1) after()   2) getTime()

Q4b). Attempt any one the following: 1x6=6

a) Write syntax and example of following Graphics class methods :

1) drawOval() 2) drawPolygon() 3) drawArc()

b) Describe dynamic method dispatch procedure with suitable example.
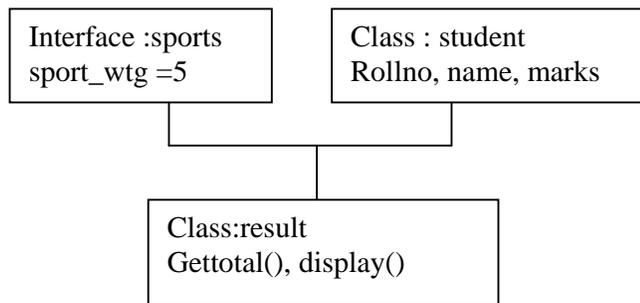

Q5. Attempt any two of the following: 2x8=16

a) Describe life cycle of Thread along with a neat diagram.

b) Write a program to input a string and raise a user defined exception if the string contains less than 8 characters.

c) State the use of Font class. Write syntax to create an object of Font class. Describe any 3 methods of Font class with their syntax and example of each.

Q6. Attempt any four of the following: 4x4=16

a) Write a program to implement following inheritance.

```
┌─────────────────────┐   ┌─────────────────────┐
│ Interface :sports   │   │ Class : student     │
│ sport_wtg =5        │   │ Rollno, name, marks │
└─────────────────────┘   └─────────────────────┘
           │                         │
           │   ┌─────────────────────┐
           └───│ Class:result        │
               │ Gettotal(), display()│
               └─────────────────────┘
```

b) What is the use of Array List class? State any 3 methods with their use from ArrayList.

c) Write code to design an applet to display 3 circles filled with 3 different colors on screen.

d) With example explain in brief new interface can be used for multiple inheritance

e) Write a program to accept a string and check whether it is a palindrome or not