Oracle Certified Professional, Java SE 7 Programmer I Exam (803)

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Question 1

Which line will print the string "MUM"?

```
public class TestClass{
    public static void main(String args []){
        String s = "MINIMUM";
        System.out.println(s.substring(4, 7)); //1
        System.out.println(s.substring(5)); //2
        System.out.println(s.substring(s.indexOf('I', 3))); //3
        System.out.println(s.substring(s.indexOf('I', 4))); //4
    }
}
```

Select 1 option(s)

A) 1
B) 2
C) 3
D) 4
E) None of these

Question 2

Which of the following declaration are valid:

```
1. bool b = null;

2. boolean b = 1;

3. boolean b = true|false;

4. bool b = (10<11);

5. boolean b = true||false;
```

Select 1 option(s)

A) 1 and 4
B) 2, 3, and 5
C) 2 and 3
D) 3 and 5
E) 5

Question 3

The options below contain the complete contents of a file (the name of the file is not specified). Which of these options can be run with the following command line once compiled?

```
java main
```

Select 1 option(s)

A)

```
//in file main.java
class main {
   public void main(String[] args) {
       System.out.println("hello");
   }
}
```

B)

```
//in file main.java
   public static void main4(String[] args) {
       System.out.println("hello");
   }
```

C)

```
//in file main.java
public class anotherone{
}
class main {
   public static void main(String[] args) {
       System.out.println("hello");
   }
}
```

D)

```
//in file main.java
class anothermain{
   public static void main(String[] args) {
       System.out.println("hello2");
   }
}
class main {
   public final static void main(String[] args) {
       System.out.println("hello");
   }
}
```

Question 4

Assuming that a valid integer will be passed in the command line as first argument, which statements regarding the following code are correct?

```
public class TestClass{
   public static void main(String args[]){
      int x = Integer.parseInt(args[0]);
      switch(x){
         case x < 5 :   System.out.println("BIG"); break;
         case x > 5 :   System.out.println("SMALL");
         default :    System.out.println("CORRECT"); break;
      }
   }
}
```

Select 1 option(s)

A) `BIG` will never be followed by `SMALL`.
B) `SMALL` will never follow anything else.
C) `SMALL` will always be followed by `CORRECT`.
D) It will not compile.
E) It will throw an exception at runtime.

Question 5

What will the following code print when compiled and run?

```
import java.util.*;
public class TestClass {
    public static void main(String[] args) throws Exception {
        ArrayList<String> al = new ArrayList<String>();
        al.add("111");
        al.add("222");
        System.out.println(al.get(al.size()));
     }
}
```

Select 1 option(s)

A) It will not compile.
B) It will throw a `NullPointerException` at run time.
C) It will throw an `IndexOutOfBoundsException` at run time.
D) `222`
E) `null`

Question 6

Identify the valid for loop constructs assuming the following declarations:

```
Object o = null;
Collection c = //valid collection object.
int[][] ia = //valid array
```

Select 2 option(s)

A) `for(o : c){ }`

B) `for(final Object o2 :c){ }`

C) `for(int i : ia) { }`

D) `for(Iterator it : c.iterator()){ }`

E) `for(int i : ia[0]){ }`

Question 7

Consider the following class...

```
class TestClass{
   int x;
   public static void main(String[] args){
      // lot of code.
   }
}
```

Select 1 option(s)

A) By declaring x as static, main can access `this.x`

B) By declaring x as public, main can access `this.x`

C) By declaring x as protected, main can access `this.x`

D) main cannot access `this.x` as it is declared now.

E) By declaring x as private, main can access `this.x`

Question 8

Consider the following program:

```
class Game {
  public void play() throws Exception   {
    System.out.println("Playing...");
  }
}

class Soccer extends Game {
   public void play(String ball)    {
      System.out.println("Playing Soccer with "+ball);
   }
}

public class TestClass {
   public static void main(String[] args) throws Exception  {
       Game g = new Soccer();
       // 1
       Soccer s = (Soccer) g;
       // 2
   }
}
```

Which of the given options can be inserted at //1 and //2?

Select 2 option(s)

A) It will not compile as it is.

B) It will throw an `Exception` at runtime if it is run as it is.

C) `g.play();` at //1 and `s.play("cosco");` at //2

D) `g.play();` at //1 and `s.play();` at //2

E) `g.play("cosco");` at //1 and `s.play("cosco");` at //2

Question 9

Following is a supposedly robust method to parse an input for a float :

```
public float parseFloat(String s){
   float f = 0.0f;
   try{
      f = Float.valueOf(s).floatValue();
      return f ;
   }
   catch(NumberFormatException nfe){
      System.out.println("Invalid input " + s);
      f = Float.NaN ;
      return f;
   }
   finally { System.out.println("finally");  }
   return f ;
}
```

Which of the following statements about the above method are true??

Select 1 option(s)

A) If input is `"0.1"` then it will return `0.1` and print `finally`.

B) If input is `"0x.1"` then it will return `Float.Nan` and print `Invalid Input 0x.1` and `finally`.

C) If input is `"1"` then it will return `1.0` and print `finally`.

D) If input is `"0x1"` then it will return `0.0` and print `Invalid Input 0x1` and `finally`.

E) The code will not compile.

Question 10

What will be the result of attempting to compile the following program?

```
public class TestClass{
   long l1;
   public void TestClass(long pLong) { l1 = pLong ; }  //(1)
   public static void main(String args[]){
      TestClass a, b ;
      a = new TestClass();  //(2)
      b = new TestClass(5);  //(3)
   }
}
```

Select 1 option(s)

A) A compilation error will be encountered at (1), since constructors should not specify a return value.
B) A compilation error will be encountered at (2), since the class does not have a default constructor.
C) A compilation error will be encountered at (3).
D) The program will compile correctly.
E) It will not compile because parameter type of the constructor is different than the type of value passed to it.

Question 11

Which of the following access control keywords can be used to enable all the subclasses to access a method defined in the base class?

Select 2 option(s)

A) public
B) private
C) protected
D) No keyword is needed.

Question 12

Consider the following code:

```
import java.util.ArrayList;

public class Student{

    ArrayList<Integer> scores;
    private double average;

    public ArrayList<Integer> getScores(){ return scores; }

    public double getAverage(){ return average; }

    private void computeAverage(){
        //valid code to compute average
        average =//update average value
    }

    public Student(){
        computeAverage();
    }
}
```

What can be done to improve the encapsulation of this class?

Select 2 option(s)

A) Make the class private.

B) Make the `scores` instance field private.

C) Make `getScores()` protected.

D) Make `computeAverage()` public.

E) Change getScores to return a copy of the scores list:

```
public ArrayList<Integer> getScores(){
    return new ArrayList(scores);
}
```

Question 13

When is the Object created at line //1 eligible for garbage collection?

```
public class TestClass{
  public Object getObject(){
     Object obj = new String("aaaaa");   //1
     Object objArr[] = new Object[1]; //2
     objArr[0] = obj; //3
     obj = null;      //4
     objArr[0] = null;//5
     return obj;      //6
  }
}
```

Select 1 option(s)

A) Just after line 2.
B) Just after line 3.
C) Just after line 4.
D) Just after line 5.
E) Just after line 6.