

Mphasis-PreAssessment-Java

67% (10/15)

✗ 1.

```
public abstract class Shape {  
    private int x;  
    private int y;  
    public abstract void draw();  
    public void setAnchor(int x, int y) {  
        this.x = x;  
        this.y = y;  
    }  
}
```

Which two classes use the Shape class correctly? (Choose two.)

- ☐ A

```
public class Circle implements Shape {  
    private int radius;  
}
```
- ☐ B

```
public abstract class Circle extends Shape {  
    private int radius;  
}
```
- ☐ C

```
public class Circle extends Shape {  
    private int radius;  
    public void draw();  
}
```
- ☐ D

```
public abstract class Circle implements Shape {  
    private int radius;  
    public void draw();  
}
```
- ☒ E

```
public class Circle extends Shape {  
    private int radius;  
    public void draw() { /* code here */ }  
}
```
- ☒ F

```
public abstract class Circle implements Shape {  
    private int radius;  
    public void draw() { /* code here */ }  
}
```

✓ 2. Which statement is true about the classes and interfaces in the exhibit?

```
01. public interface A {  
02.     public void doSomething(String thing);  
03. }  
01. public class AImpl implements A {  
02.     public void doSomething(String msg) {}  
03. }  
01. public class B {  
02.     public A doit(){  
03.         //more code here  
04.     }  
05.     public String execute(){  
06.         //more code here  
07.     }  
08. }  
01. public class C extends B {  
02.     public AImpl doit(){  
03.         //more code here  
04.     }  
05.     public Object execute() {  
06.         //more code here  
07.     }  
08. }  
09. }
```

- ☐ (A) Compilation will succeed for all classes and interfaces.
- ☐ (B) Compilation of class C will fail because of an error in line 2.
- ☒ (C) Compilation of class C will fail because of an error in line 6.
- ☐ (D) Compilation of class AImpl will fail because of an error in line 2.

✓ 3. Given:

```
public static void parse(String str) {  
    try {  
        float f = Float.parseFloat(str);  
    } catch (NumberFormatException nfe) {  
        f = 0;  
    } finally {  
        System.out.println(f);  
    }  
}  
  
public static void main(String[] args) {  
    parse("invalid");  
}
```

What is the result?

- ☐ (A) 0.0
- ☒ (B) Compilation fails.
- ☐ (C) A ParseException is thrown by the parse method at runtime.
- ☐ (D) A NumberFormatException is thrown by the parse method at runtime.

✗ 4. Given:
01. public class Blip {
02. protected int blipvert(int x) { return 0; }
03. }
04. class Vert extends Blip {
05. // insert code here
06. }
Which five methods, inserted independently at line 5, will compile? (Choose five.)

- ☒ A public int blipvert(int x) { return 0; }
- ☐ B private int blipvert(int x) { return 0; }
- ☐ C private int blipvert(long x) { return 0; }
- ☒ D protected long blipvert(int x) { return 0; }
- ☒ E protected int blipvert(long x) { return 0; }
- ☒ F protected long blipvert(long x) { return 0; }
- ☒ G protected long blipvert(int x, int y) { return 0; }

✓ 5. public class TestString1 {
public static void main(String[] args) {
String str = "420";
str += 42;
System.out.print(str);
}
}

What is the output?

- ☐ A 42
- ☐ B 420
- ☐ C 462
- ☒ D 42042
- ☐ E Compilation fails.
- ☐ F An exception is thrown at runtime.

✗ 6. Given:
23. Object [] myObjects = {
24. new Integer(12),
25. new String("foo"),
26. new Integer(5),
27. new Boolean(true)
28. };
29. Arrays.sort(myObjects);
30. for(int i=0; i<myObjects.length; i++) {
31. System.out.print(myObjects[i].toString());
32. System.out.print(" ");
33. }
What is the result?

- ☐ (A) Compilation fails due to an error in line 23.
- ☐ (B) Compilation fails due to an error in line 29.
- ☐ (C) A ClassCastException occurs in line 29.
- ☐ (D) A ClassCastException occurs in line 31.
- ☒ (E) The value of all four objects prints in natural order.

✓ 7. Which statement is true?

- ☐ (A) A class's finalize() method CANNOT be invoked explicitly.
- ☐ (B) super.finalize() is called implicitly by any overriding finalize() method.
- ☒ (C) The finalize() method for a given object is called no more than once by the garbage collector.
- ☐ (D) The order in which finalize() is called on two objects is based on the order in which the two objects became finalizable.

✓ 8. package com;

```
public class Test {  
  
    private int empId;  
    private String empName;  
    public String designation;  
    public int getEmpId() {  
        return empId;  
    }  
    public void setEmpId(int empId) {  
        this.empId = empId;  
    }  
    public String getEmpName() {  
        return empName;  
    }  
    public void setEmpName(String empName) {  
        this.empName = empName;  
    }  
    public String getDesignation() {  
        return designation;  
    }  
    public void setDesignation(String designation) {
```

```
this.designation = designation;  
}  
}
```

Above defined class is not fully encapsulated. why?

- ☐ (A) all methods defined as public
- ☐ (B) all properties defined as private
- ☒ (C) designation property is defined as public
- ☐ (D) Test class is defined as public



```
9. class Employee{  
  @Override  
  public void finalize(){  
    System.out.println("Finallize method got called");  
  }  
}  
class Test{  
  @Override  
  public void finalize(){  
    System.out.println("Finallize method got called");  
  }  
  public static void main(String[] args){
```

```
  Employee emp=new Employee();  
  String str=new String("Abc");  
  System.gc();  
}  
}
```

Select One correct option

- ☐ (A) Finalize method of Employee executed
- ☐ (B) Finalize method of Test executed
- ☒ (C) None of classes Finalize method gets called
- ☐ (D) Finalize method cannot be overridden in Test class. Because Test is not sub class of Employee

✓ 10. interface DoStuff2 {
float getRange(int low, int high);
}
interface DoMore {
float getAvg(int a, int b, int c);
}
abstract class DoAbstract implements DoStuff2, DoMore {
}
06. class DoStuff implements DoStuff2 {
07. public float getRange(int x, int y) {
08. return 3.14f;
09. }
10. }
11.
12. interface DoAll extends DoMore {
13. float getAvg(int a, int b, int c, int d);
14. }
What is the result?

- ☒ A The file will compile without error.
- ☐ B Compilation fails. Only line 7 contains an error.
- ☐ C Compilation fails. Only line 12 contains an error.
- ☐ D Compilation fails. Only line 13 contains an error.
- ☐ E Compilation fails. Only lines 7 and 12 contain errors.

✗ 11. What is displayed on the console when running the following program?

```
class Test {
```

```
    public static void main(String[] args) {  
        try {  
            method();  
            System.out.println("After the method call");  
        }  
        catch (NumberFormatException ex) {  
            System.out.println("NumberFormatException");  
        }  
        catch (RuntimeException ex) {  
            System.out.println("RuntimeException");  
        }  
    }  
}
```

```

}
}
static void method() {
String s = "5.6";
Integer.parseInt(s); // Cause a NumberFormatException
int i = 0;
int y = 2 / i;
System.out.println("Welcome to Java");
}
}

```

- ☐ (A) The program displays NumberFormatException.
- ☐ (B) The program displays NumberFormatException followed by After the method call.
- ☐ (C) The program has a compilation error.
- ☒ (D) The program displays RuntimeException.



```

12. public class BuildStuff {
public static void main(String[] args) {
Boolean test = new Boolean(true);
Integer x = 343;
Integer y = new BuildStuff().go(test, x);
System.out.println(y);
}
int go(Boolean b, int i) {
if(b) return (i/7);
return (i/49);
}
}

```

What is the result?

- ☐ (A) 7
- ☒ (B) 49
- ☐ (C) 343
- ☐ (D) Compilation fails.
- ☐ (E) An exception is thrown at runtime.



13. Given:

```
import java.io.*;
public class Forest implements Serializable {
    private Tree tree = new Tree();
    public static void main(String [] args) {
        Forest f = new Forest();
        try {
            FileOutputStream fs = new FileOutputStream("Forest.ser");
            ObjectOutputStream os = new ObjectOutputStream(fs);
            os.writeObject(f); os.close();
        } catch (Exception ex) { ex.printStackTrace(); }
    }
}
class Tree {
}
```

What is the result?

- ☐ (A) Compilation fails.
- ☒ (B) An exception is thrown at runtime.
- ☐ (C) An instance of Forest is serialized.
- ☐ (D) An instance of Forest and an instance of Tree are both serialized.



14. C1,C2 and C3 classes defined in various packages as below declaration

```
package p1;
public class C1{

}
package p1.p2;
public class C2{

}
package p1.p2.p3;
class C3{

}
```

what is the correct statement to import class C3?

- ☐ (A) import p1.*;
- ☐ (B) import p3.*;
- ☐ (C) import p1.p2.*;
- ☐ (D) import p1.p3.p2.*;
- ☒ (E) import p1.p2.p3.*;

✗ 15. Analyze the following code:

```
class Test {  
    public static void main(String[] args) {  
        try {  
            String s = "5.6";  
            Integer.parseInt(s); // Cause a NumberFormatException  
  
            int i = 0;  
            int y = 2 / i;  
        }  
        catch (Exception ex) {  
            System.out.println("NumberFormatException");  
        }  
        catch (RuntimeException ex) {  
            System.out.println("RuntimeException");  
        }  
    }  
}
```

- ☐ A The program displays NumberFormatException.
- ☒ B The program displays RuntimeException.
- ☐ C The program displays NumberFormatException followed by RuntimeException.
- ☐ D The program has a compilation error.