

## Mphasis-PreAssessment-Java

53% (8/15)



```
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.