

QUIZ

What would the following code display?

```
int[] a = {1,2,3,4,5,6};  
int i = a.length - 1;  
while(i>=0){  
    System.out.print(a[i]);  
    i--;  
}
```

- a. 123456
- b. An exception could be thrown at runtime.
- c. 654321
- d. nothing
- e. 65432
- f. 12345

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A and E are classes, B and D are interfaces
Which would be correct?

- a. `interface F implements B,D { }`
- b. `interface F implements D { }`
- c. `interface F extends D { }`
- d. `interface F extends E { }`
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What is inheritance?

- a. It is the process where one object acquires the properties of another.
- b. inheritance is the ability of an object to take on many forms.
- c. inheritance is a technique to define different methods of same type.
- d. None of the above.

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What is polymorphism?

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What are instance variables?

- a. Instance variables are static variables within a class but outside any method.
- b. Instance variables are variables defined inside methods, constructors or blocks.
- c. Instance variables are variables within a class but outside any method.
- d. None of the above.

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When people refer to "a member of a class", they mean:

- a. An attribute
- b. A method
- c. Attribute or method
- d. A sub-class

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What would display the following statements?

```
int[] nums = {1,2,3,4,5,6};
```

```
System.out.println((nums[1] + nums[3]));
```

- a. 6
- b. 2+4
- c. 1+3
- d. 4

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If classes Student, Staff and Faculty extend class Person, which one makes sense:

- a. Faculty[] faculties={new Person(),
new Staff(), new Student()};
- b. Staff[] staff={new Person(),
new Faculty(), new Student()};
- c. Person[] persons={new Faculty(),
new Staff(), new Student()};

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What is the output of the following program?

```
class Recursion {
```

```
    int func(int n) {  
        int result;  
        if (n == 0) {  
            result = 3;  
        } else {  
            result = func(n - 1);  
        }  
        return result;  
    }  
}
```

```
public class Prog {  
    public static void main(String args[]) {  
        Recursion obj = new Recursion();  
        System.out.print(obj.func(5));  
    }  
}
```

a. 5

b. 18

c. 3

d. Compilation Error

e. Runtime Error

What is the output of the following program?

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public class Prog {  
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    }  
}
```

a. 5

b. 18

c. 3

d. Compilation Error

e. Runtime Error

What is the output of the following program?

```
class Recursion {
    int func(int n) {
        int result = 0;
        if (n < 10) {
            if (n == 8) {
                result = 1;
            }
        } else {
            result = func(n % 10) + func(n / 10);
        }
        return result;
    }
}

public class Prog {
    public static void main(String args[]) {
        Recursion obj = new Recursion();
        System.out.print(obj.func(123) + " ");
        System.out.print(obj.func(8328) + " ");
        System.out.println(obj.func(8325));
    }
}
```

a. 0 0 0

b. 0 2 1

c. 0 1 0

d. Compilation
Error

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        }
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    }
}
```

a. 0 0 0

b. 0 2 1

c. 0 1 0

d. Compilation
Error

Which of the following is a valid annotation definition ?

- a. `public @annotation MyAnnotation{ }`
- b. `private @interface MyAnnotation{ }`
- c. `public @interface MyAnnotation{ }`
- d. `public @MyAnnotation{ }`

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Which of the following belongs to meta-annotations?

- a. `@Override`
- b. `@Retention`
- c. `@Deprecated`
- d. `@SuppressWarnings()`

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Which of the following are valid retention policy types in Java (multiple answers)?

- a. SOURCE
- b. CLASS
- c. RUNTIME
- d. CODE
- e. TOOLS

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What will be the output of the following program?

```
import java.lang.annotation.*;  
import java.lang.reflect.*;
```

```
@Retention(RetentionPolicy.RUNTIME)
```

```
@interface MyAnnotation {
```

```
    int value();
```

```
}
```

```
class Hello {
```

```
    @MyAnnotation(value = 10)
```

```
    public void goodEvening() {
```

```
        System.out.print("Good Evening");
```

```
    }
```

```
}
```

```
public class HelloAnnotation {
```

```
    public static void main(String args[]) throws Exception {
```

```
        Hello h = new Hello();
```

```
        Method m = h.getClass().getMethod("goodEvening");
```

```
        MyAnnotation myAnn = m.getAnnotation(MyAnnotation.class);
```

```
        System.out.println("Prints " + myAnn.value());
```

```
    }
```

```
}
```

- a. Prints HelloAnnotation 10
- b. Good Evening Prints 10
- c. Prints 10
- d. Some other output
- e. Output cannot be determined

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import java.lang.reflect.*;
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```

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class Hello {
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    public void goodEvening() {
        System.out.print("Good Evening");
    }
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public class HelloAnnotation {
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- f. Compilation Error
- g. Runtime Exception

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import java.lang.annotation.*;
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}
```

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        System.out.print("Good Evening");
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    }
}
```

- a. Prints HelloAnnotation 10
- b. Good Evening Prints 10
- c. Prints 10
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- e. Output cannot be determined
- f. Compilation Error
- g. **Runtime Exception**

What is the output of the following program?

```
interface Int{ }  
class Simple implements Int{ }  
class SimpleTest {  
    public static void main(String[] args) {  
        try {  
            Class c=Class.forName("Simple");  
            System.out.print(c.isInterface() + " ");  
            c=Class.forName("Int");  
            System.out.println(c.isInterface());  
        } catch (Exception e) {  
            System.out.println(e);  
        }  
    }  
}
```

a. false true

b. true true

c. true false

d. false false

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    public static void main(String[] args) {
        try {
            Class c=Class.forName("Simple");
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            c=Class.forName("Int");
            System.out.println(c.isInterface());
        } catch (Exception e) {
            System.out.println(e);
        }
    }
}
```

- a. false true
- b. true true
- c. true false
- d. false false

Which of the following can obtain the location of file `Reflection.class` at runtime?

```
public class Reflection { }
```

- a. `Reflection.class.getClassLoader().getResource("Reflection.class")`
- b. `Reflection.getClass().getResource("Reflection.class")`
- c. `Reflection.getClass().getClassLoader().getResource("Reflection.class")`
- d. `Reflection.class.getClassLoader("Reflection.class")`

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- b. `Reflection.getClass().getResource("Reflection.class")`
- c. `Reflection.getClass().getClassLoader().getResource("Reflection.class")`
- d. `Reflection.class.getClassLoader("Reflection.class")`

Consider the following program:

```
class MyClass {  
    private float val;  
    @Deprecated  
    MyClass(int n) {  
        val = n;  
    }  
    MyClass(float f) {  
        val = f;  
    }  
}  
  
public class TestDeprecated {  
    public static void main(String[] args) {  
        int val = 3;  
        MyClass obj = new MyClass(3);  
    }  
}
```

What of the following is true?

- a. It generates one warning (call of the deprecated constructor) when compiling, nothing when running
- b. It generates two warnings (definition of the deprecated constructor and call of the deprecated constructor) when compiling, nothing when running
- c. No warning when compiling but it generates one warning when running
- d. No warning when compiling but it generates two warnings when running
- e. No warning when compiling, exception when running
- f. One warning when compiling, exception when running

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- a. Create a connection to the database.
- b. Send SQL statements to the database.
- c. Processing data and query results
- d. All of the above

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(multiple choice) which of the following steps are performed when accessing the database through JDBC?

- a. Loading the JDBC driver.
- b. Setting up the connection.
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Which package allows Java to access a database?

- a. java.sql
- b. java.db
- c. java.dbms
- d. java.jdbc
- e. java.lang
- f. java.util

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In general, you prefer adding a TableView to a:

- a. BorderPane
- b. StackPane
- c. ScrollPane
- d. SplitPane
- e. TabPane
- f. TitledPane

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FXCollections:

- a. Is a package that contains classes for collections that you should use as backend to some JavaFX widgets.
- b. Is a class that contains wrapper methods for regular collections so that you can use them as backend to some JavaFX widgets.
- c. Is a class that only contains the ObservableList inner class
- d. Is an enum that is used for defining the collections that can be used with JavaFx widgets (for instance a TreeSet cannot be used, and doesn't appear in the enum)

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"static" in java indicates:

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- b. Something that is attached to the class, not to a particular object instance
- c. Something that cannot throw exceptions
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The protocol that takes a message from a network to another network is:

- a. FTP
- b. TCP
- c. IP
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- a. ant
- b. junit
- c. make
- d. maven

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The time taken by a message to travel between computers is called:

- a. bandwidth
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- c. latency
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You need to have in your classpath the .jar of the JDBC driver that you are using:

- a. Only when you compile the program
- b. Only when you run the program
- c. Both when you compile and run the program

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If you serialize an object that contains references, when you reload it the referenced objects will go at exactly the same place in memory:

- a. True
- b. False

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- b. False

To make an object serializable:

- a. You don't need to do anything - all objects are serializable by default.
- b. You only need to say that it implements the Serializable interface.
- c. You need to say that it implements the Serializable interface and implement the two methods `writeObject()` and `readObject()` defined in the interface.

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