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## Question

# 1

Complete

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Suppose we have a class named Rabbit. Which of the following statements are true?(Choose all that apply)

```
1: public class Rabbit {  
2: public static void main(String[] args) {  
3: Rabbit one = new Rabbit();  
4: Rabbit two = new Rabbit();  
5: Rabbit three = one;  
6: one = null;  
7: Rabbit four = one;  
8: three = null;  
9: two = null;  
10: two = new Rabbit();  
11: System.gc();  
12: } }
```

Select one or more:

- ☐ a. The Rabbit object from line 3 is first eligible for garbage collection immediately following line 12.
- ☒ b. The Rabbit object from line 4 is first eligible for garbage collection immediately following line 9.
- ☒ c. The Rabbit object from line 3 is first eligible for garbage collection immediately following line 8.
- ☐ d. The Rabbit object from line 4 is first eligible for garbage collection immediately following line 12.
- ☐ e. The Rabbit object from line 4 is first eligible for garbage collection immediately following line 11.
- ☐ f. The Rabbit object from line 3 is first eligible for garbage collection immediately following line 6.

## Question

# 2

Complete

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Which of the following are true? (Choose all that apply)

Select one or more:

- ☐ a. javac compiles a .class file into a .java file.
- ☐ b. Java takes the name of the .bytecode file as a parameter.
- ☒ c. javac compiles a .java file into a .class file.
- ☐ d. javac compiles a .java file into a .bytecode file.
- ☐ e. Java takes the name of the .class file as a parameter.
- ☒ f. Java takes the name of the class as a parameter.

## Question

# 3

Complete

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What does the following code output?

```
1: public class Salmon {  
2:     int count;  
3:     public void Salmon() {  
4:         count = 4;  
5:     }  
6:     public static void main(String[] args) {  
7:         Salmon s = new Salmon();  
8:         System.out.println(s.count);  
9:     }  
10: }
```

Select one:

- ☐ a. Compilation fails on line 3.
- ☒ b. 0
- ☐ c. 4
- ☐ d. Compilation fails on line 8.
- ☐ e. Compilation fails on line 7.
- ☐ f. Compilation fails on line 4.

## Question

# 4

Complete

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1.00

Which of the following are true? (Choose all that apply)

```
public class Bunny {  
    public static void main(String[] args) {  
        Bunny bun = new Bunny();  
    }  
}
```

Select one or more:

- ☐ a. main is a class.
- ☐ b. None of the above.
- ☒ c. bun is a reference to an object.
- ☒ d. Bunny is a class.
- ☐ e. bun is a class.
- ☐ f. main is a reference to an object.
- ☐ g. Bunny is a reference to an object.

## Question

# 5

Complete

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1.00

What is true about the following code? (Choose all that apply)

```
public class Bear {  
    protected void finalize() {  
        System.out.println("Roar!");  
    }  
    public static void main(String[] args) {  
        Bear bear = new Bear();  
        bear = null;  
        System.gc();  
    }  
}
```

Select one or more:

- ☐ a. Garbage collection is guaranteed not to run.
- ☒ b. finalize() might or might not be called
- ☐ c. Garbage collection is guaranteed to run.
- ☐ d. finalize() is guaranteed to be called.
- ☐ e. The code does not compile.
- ☒ f. Garbage collection might or might not run.
- ☐ g. finalize() is guaranteed not to be called.

## Question

# 6

Complete

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1.00

Which of the following are true? (Choose all that apply)

Select one or more:

- ☒ a. **None of the above.**
- ☐ b. **A local variable of type float defaults to 0.**
- ☐ c. **A local variable of type boolean defaults to true.**
- ☐ d. **A local variable of type boolean defaults to null.**
- ☐ e. **A local variable of type Object defaults to null.**
- ☐ f. **A local variable of type boolean defaults to false.**
- ☐ g. **A local variable of type float defaults to 0.0.**

## Question

# 7

Complete

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1.00

Which represent the order in which the following statements can be assembled into a program that will compile successfully? (Choose all that apply)

A: `class Rabbit {}`

B: `import java.util.*;`

C: `package animals;`

Select one or more:

- ☒ a. **C, A**
- ☐ b. **A, B**
- ☐ c. **A, C**
- ☒ d. **C, B, A**
- ☒ e. **B, A**
- ☐ f. **B, C, A**
- ☐ g. **A, B, C**

## Question

# 8

Complete

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1.00

Given the following class, which of the following lines of code can replace INSERT CODE HERE to make the code compile? (Choose all that apply)

```
public class Price {  
    public void admission() {  
        INSERT CODE HERE  
        System.out.println(amount);  
    }  
}
```

Select one or more:

- ☐ a. `int amount = 1_2_;`
- ☐ b. `None of the above.`
- ☒ c. `int amount = 0xE;`
- ☐ d. `int amount = 9L;`
- ☐ e. `double amount = 0xE;`
- ☐ f. `double amount = 1_2_.0_0;`
- ☒ g. `int amount = 0b101;`

## Question

# 9

Complete

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1.00

Which of the following legally fill in the blank so you can run the `main()` method from the command line? (Choose all that apply)

```
public static void main( )
```

Select one or more:

- ☒ a. `String _Names[]`
- ☒ b. `String abc[]`
- ☐ c. `String[] 123`
- ☒ d. `String... $n`
- ☐ e. `String names`
- ☒ f. `String[] _names`
- ☐ g. `None of the above.`

## Question 10

Complete

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1.00

Which of the following are true statements? (Choose all that apply)

Select one or more:

- ☐ a. Java is a procedural language.
- ☐ b. Java has pointers to specific locations in memory.
- ☒ c. Java code compiled on Windows can run on Linux.
- ☒ d. Java is an object-oriented language.
- ☐ e. Java is a functional programming language.
- ☐ f. Java allows operator overloading.