

```
1. public class Unary{
    public static void main(String[] args) {
        int x = 7;
        int y = 6*x++;
        System.out.println (" y= " + y);
        int a = 7;
        int b = 6*++a;
        System.out.println (" b= " + b);
    }
}
```

What is the output of this code fragment?

- A. y= 42
b= 48
- B. y= 48
b= 48
- C. y= 48
b= 42
- D. y= 42
b= 42

2. Consider the following code fragment:

```
int x;
int a = 5;
int b= 8;
x = ++a + b++;
```

After the execution of this code fragment, what is the value of x?

- A. 13
- B. 14
- C. 15
- D. Compilation fails.

3. Which of the following expressions are illegal? (Choose all that apply.)

- A. int x = 9;
- B. int y = !x;
- C. double z = 9.00 >> 2;
- D. int i = ^7;

4. Consider the following code fragment:

```
1. public class Unary{
2.     public static void main(String[] args) {
3.         byte x = 7;
4.         byte y = 6*x++;
5.         byte z = x*y;
6.         System.out.println ("z: " + z);
7.     }
8. }
```

What is the output of this code fragment?

- A. z: 42
- B. z: 48
- C. The code will not compile due to line 4.
- D. The code will compile, but will generate a runtime error.

5. Consider the following code fragment:

```
int x = 9;
int y = -2;
System.out.println("output: " + x%y);
```

What is the output of this code fragment?

- A. -1;
- B. 1;
- C. 4.5;
- D. 4

6. Consider the following code fragment:

```
1. public class Question{
2.     public static void main(String[] args) {
3.         byte x = 21;
4.         byte y = 13;
5.         int z = x^y;
6.         System.out.println(z);
7.     }
8. }
```

What is the result of this code fragment?

- A. 24
- B. 29
- C. 21
- D. 13
- E. A compiler error occurs at line 5.

7. Consider the following code fragment:

```
1. public class LogicTest{
2.     public static void main(String[] args) {
3.         int i = 5;
4.         int j = 10;
5.         int k = 15;
6.         if ( (i < j) || (k-- > j) ) {
7.             System.out.println("First if, value of k: " + k);
8.         }
9.         if ( (i < j) && ( --k < j) ) {
10.            System.out.println("Second if, value of k: " +
11.            k);
12.        }
13.        System.out.println("Out of if, k:" + k);
14.    }
```

What is the output of this code fragment?

- A. First if, value of k: 14
Out of if, k: 13
- B. First if, value of k: 15
Out of if, k: 14
- C. First if, value of k: 15
Out of if, k: 13

8. Consider the following code fragment:

```
1. public class LogicTest{
2.     public static void main(String[] args) {
3.         int i = 5;
```

```
4.   int j = 10;
5.   int k = 15;
6.   if ( (i < j) || ( k-- > j) ) {
7.       System.out.println("First if, value of k: " + k);
8.   }
9.   if ( (i > j) && ( --k < j) ) {
10.      System.out.println("Second if, value of k: " + k);
11.  }
12.  System.out.println("Out of if, k:" + k);
13.  }
14.  }
```

What is the output of this code fragment?

- A. First if, value of k: 14
Out of if, k: 13
- B. First if, value of k: 15
Out of if, k: 14
- C. First if, value of k: 15
Out of if, k: 13
- D. First if, value of k: 15
Out of if, k: 15

9. Consider the following code:

```
1. class Foo {
2.     static boolean condition;
3.     public static void main(String [] args) {
4.         int i = 0;
5.         if(++i >= 1) || (condition == false))
6.             i++;
7.         if((i++ > 1) && (condition = true))
8.             i++;
9.         System.out.println(i);
10.    }
11. }
```

What is the result of this code?

- A. 4
- B. 3
- C. 2
- D. 1
- E. Compiler error at line 7
- F. Throws exception at runtime

```
10.    class Titanic {
        public static void main(String[] args) {
            Boolean b1 = true;
            boolean b2 = false;
            boolean b3 = true;
            if((b1 & b2) | (b2 & b3) & b3)
                System.out.print("alpha ");
            if((b1 = false) | (b1 & b3) | (b1 | b2))
                System.out.print("beta ");
        }
    }
```

What is the result?

- A. beta
- B. alpha
- C. alpha beta
- D. Compilation fails.
- E. No output is produced.
- F. An exception is thrown at runtime.

11. Given:

```
1. class Maybe {  
2.     public static void main(String[] args) {  
3.         boolean b1 = true;  
4.         boolean b2 = false;  
5.         System.out.print(!false ^ false);  
6.         System.out.print(" " + (!b1 & (b2 = true)));  
7.         System.out.println(" " + (b2 ^ b1));  
8.     }  
9. }
```

Which are true?

- A. Line 5 produces true.
- B. Line 5 produces false.
- C. Line 6 produces true.
- D. Line 6 produces false.
- E. Line 7 produces true.
- F. Line 7 produces false.

12. Given:

```
class Sixties {  
public static void main(String[] args) {  
    int x = 5; int y = 7 ;  
    System.out.print(((y * 2) % x));  
    System.out.print(" " + (y % x));  
}  
}
```

What is the result?

- A. 1 1
- B. 1 2
- C. 2 1
- D. 2 2
- E. 4 1
- F. 4 2
- G. Compilation fails.
- H. An exception is thrown at runtime.