

Primer examen semana 1

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1.- Which of the following Java operators can be used with boolean variables? (Choose all that apply.)

1. ==
2. +
3. --
4. !
5. %
6. <=
7. Cast with (boolean)

R: 1,4,7

2.-What data type (or types) will allow the following code snippet to compile? (Choose all that apply.)

1. byte apples = 5;
2. short oranges = 10;
3. _____ bananas = apples + oranges;

1. int
2. long
3. boolean
4. double
5. short
6. Byte

R: 1,2,4

3.-What change, when applied independently, would allow the following code snippet to compile? (Choose all that apply.)

```
3: long ear = 10;  
4: int hearing = 2 * ear;
```

1. No change; it compiles as is.
2. Cast ear on line 4 to int.
3. Change the data type of ear on line 3 to short.
4. Cast 2 * ear on line 4 to int.
5. Change the data type of hearing on line 4 to short.
6. Change the data type of hearing on line 4 to long

R: 2,3,4,6

4.-What is the output of the following program?

```
1: public class CandyCounter {
2:     static long addCandy(double fruit, float
vegetables) {
3:         return (int)fruit+vegetables;
4:     }
5:
6:     public static void main(String[] args) {
7:         System.out.print(addCandy(1.4, 2.4f) + "-
");
8:         System.out.print(addCandy(1.9, (float)4)
+ "-");
9:         System.out.print(addCandy((long)(int)
(short)2, (float)4)); } }
```

1. 4-6-6.0
2. 3-5-6
3. 3-6-6
4. 4-5-6
5. The code does not compile because of line 9.
6. None of the above

R: 6

5.-What are the unique outputs of the following code snippet? (Choose all that apply.)

```
int a = 2, b = 4, c = 2;
System.out.println(a > 2 ? --c : b++);
System.out.println(b = (a!=c ? a : b++));
System.out.println(a > b ? b < c ? b : 2 : 1);
```

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. The code does not compile

R: 4,5,1

6.-Given the following code snippet, what is the value of the variables after it is executed? (Choose all that apply.)

```
int ticketsTaken = 1;
int ticketsSold = 3;
ticketsSold += 1 + ticketsTaken++;
ticketsTaken *= 2;
ticketsSold += (long)1;
```

1. ticketsSold is 8
2. ticketsTaken is 2
3. ticketsSold is 6
4. ticketsTaken is 6
5. ticketsSold is 7
6. ticketsTaken is 4
7. The code does not compile.

R: 3,6

7.-What is the output of the following code snippet? (Choose all that apply.)

```
3: int temperature = 4;
4: long humidity = -temperature + temperature * 3;
5: if (temperature>=4)
6: if (humidity < 6) System.out.println("Too
Low");
7: else System.out.println("Just Right");
8: else System.out.println("Too High");
```

1. Too Low
2. Just Right
3. Too High
4. A NullPointerException is thrown at runtime.
5. The code will not compile because of line 7.
6. The code will not compile because of line 8.

R: 8

8.-Which statements, when inserted independently into the following blank, will cause the code to print 2 at runtime? (Choose all that apply.)

```
int count = 0;
BUNNY: for(int row = 1; row <=3; row++)
    RABBIT: for(int col = 0; col <3 ; col++) {
        if((col + row) % 2 == 0)
            _____;
        count++;
    }
System.out.println(count);
```

1. break BUNNY
2. break RABBIT
3. continue BUNNY
4. continue RABBIT
5. break
6. continue

R: 2,3,5

9.- What is the output of the following code snippet?

```
2: boolean keepGoing = true;
3: int result = 15, meters = 10;
4: do {
5:     meters--;
6:     if(meters==8) keepGoing = false;
7:     result -= 2;
8: } while keepGoing;
9: System.out.println(result);
```

1. 7
2. 9
3. 10
4. 11
5. 15
6. The code will not compile because of line 6.
7. The code does not compile for a different reason.

R: 7

10.- What is the output of the following code snippet?
(Choose all that apply.)

```
9:  int w = 0, r = 1;
10:  String name = "";
11:  while(w < 2) {
12:      name += "A";
13:      do {
14:          name += "B";
15:          if(name.length()>0) name += "C";
16:          else break;
17:      } while (r <=1);
18:      r++; w++; }
19:  System.out.println(name);
```

1. ABC
2. ABCABC
3. ABCABCABC
4. Line 15 contains a compilation error.
5. Line 18 contains a compilation error.
6. The code compiles but never terminates at runtime.
7. The code compiles but throws a NullPointerException at runtime.

R: 6

11.- What is output by the following code? (Choose all that apply.)

```
1: public class Fish {
2:     public static void main(String[] args) {
3:         int numFish = 4;
4:         String fishType = "tuna";
5:         String anotherFish = numFish + 1;
6:         System.out.println(anotherFish + " " +
fishType);
7:         System.out.println(numFish + " " + 1);
8:     } }
```

1. 4 1
2. 5
3. 5 tuna
4. 5tuna
5. 51tuna
6. The code does not compile.

R: 6

12.- What is the result of the following code?

```
7: StringBuilder sb = new StringBuilder();  
8: sb.append("aaa").insert(1, "bb").insert(4,  
"ccc");  
9: System.out.println(sb);
```

1. abbaaccc
2. abbaccca
3. bbaaaccc
4. bbaaccca
5. An empty line
6. The code does not compile.

R: 2

13.- What is the result of the following code?

```
12: int count = 0;  
13: String s1 = "java";  
14: String s2 = "java";  
15: StringBuilder s3 = new StringBuilder("java");  
16: if (s1 == s2) count++;  
17: if (s1.equals(s2)) count++;  
18: if (s1 == s3) count++;  
19: if (s1.equals(s3)) count++;  
20: System.out.println(count);
```

1. 0
2. 1
3. 2
4. 3
5. 4
6. An exception is thrown.
7. The code does not compile.

R: 7

14.- What is the result of the following code?

```
public class Lion {
    public void roar(String roar1, StringBuilder
roar2) {
        roar1.concat("!!!");
        roar2.append("!!!");
    }
    public static void main(String[] args) {
        String roar1 = "roar";
        StringBuilder roar2 = new
StringBuilder("roar");
        new Lion().roar(roar1, roar2);
        System.out.println(roar1 + " " + roar2);
    } }
```

1. roar roar
2. roar roar!!!
3. roar!!! roar
4. roar!!! roar!!!
5. An exception is thrown.
6. The code does not compile.

R: 2

15.- Which of the following can replace line 4 to print "avaJ"? (Choose all that apply.)

```
3: var puzzle = new StringBuilder("Java");
4: // INSERT CODE HERE
5: System.out.println(puzzle);
```

1. puzzle.reverse();
2. puzzle.append("vaJ\$").substring(0, 4);
3. puzzle.append("vaJ\$").delete(0, 3).deleteCharAt(puzzle.length() - 1);
4. puzzle.append("vaJ\$").delete(0, 3).deleteCharAt(puzzle.length());
5. None of the above

R: 1