

CSE110 Review Questions

Prepared by Ryan Dougherty

Decision - Control Structures

Question 1 What is the output of the following code?

```
int depth = 8;
if (depth >= 8) {
    System.out.print("Danger: ");
    System.out.print("deep water. ");
}
System.out.println("No swimming allowed.");
```

Question 2 What is the output of the following code?

```
int depth = 12;
int temp = 42;
System.out.print("The water is: ");
if (depth >= 8)
    System.out.print("deep ");
if (temp <= 50 && depth <= 12)
    System.out.print("cold ");
System.out.println(" wet.");
```

Question 3 Consider the following code:

```
String str1 = "Java is fun";
String str2 = "Java is fun";
if ( /* */ )
    System.out.println("String1 and String2 are the same");
else
    System.out.println("String1 and String2 are different");
```

Fill in the missing condition to check if str1 and str2 are the same.

Question 4 If k holds a value of the type int, then the value of the expression:

k <= 10 || k > 10

- a) must be true
- b) must be false
- c) could be either true or false
- d) is a value of type int

Question 5 Write a program that asks for 3 integers and prints the median value of the three integers.

Question 6 Evaluate the following expressions, assuming that $x = -2$ and $y = 3$.

- a) $x \leq y$
- b) $(x < 0) \parallel (y < 0)$
- c) $(x \leq y) \&\& (x < 0)$
- d) $((x + y) > 0) \&\& !(y > 0)$

Question 7 Write the output of the following code:

```
int grade = 45;
if (grade >= 70)
    System.out.println("passing");
if (grade < 70)
    System.out.println("dubious");
if (grade < 60)
    System.out.println("failing");
```

Question 8 Write the output of the following code:

```
String option = "A";
if (option.equals("A"))
    System.out.println("addRecord");
if (option.compareTo("A") == 0)
    System.out.println("deleteRecord");
```

Question 9 Write the output of the following code:

```
double x = -1.5;
if (x < -1.0)
    System.out.println("true");
else
    System.out.println("false");
System.out.println("after if...else");
```

Question 10 Write the output of the following code:

```
int j = 8;
double x = -1.5;
if (x >= j)
    System.out.println("x is high");
else
    System.out.println("x is low");
```

Question 11 Write the output of the following code:

```
double x = -1.5;
if (x <= 0.0) {
    if (x < 0.0)
        System.out.println("neg");
    else
        System.out.println("zero");
}
else
    System.out.println("pos");
```

Question 12 Write code that ensures that an int variable called number is an odd integer.