**Week 1 Java Review (Solutions)**

**True/False**

\_F\_\_\_ 1. The first step to the problem-solving process is to implement the algorithm in a programming language, such as Java, and verify that the algorithm works.

\_F\_\_\_ 2. The symbol '5' does not belong to the char data type because 5 is a digit.

\_F\_\_\_ 3. If ++x is used in an expression, first the expression is evaluated, and then the value of x is incremented by 1.

\_T\_\_\_ 4. In Java, !, &&, and || are called logical operators.

\_T\_\_\_ 5. Suppose P and Q are logical expressions. The logical expression P && Q is false if both P and Q are false.

\_F\_\_\_ 6. The output of the Java code, assuming that all variables are properly declared, is 32.

num = 10;

while (num <= 32)

num = num + 5;

System.out.println(num);

\_F\_\_\_ 7. A constructor has no type and is therefore a void method.

\_T\_\_\_ 8. Given the declaration

double[] numList = new double[20];

the statement

numList[12] = numList[5] + numList[7];

updates the content of the thirteenth component of the array numList.

\_T\_\_\_ 9. A subclass can override public methods of a superclass.

\_T\_\_\_ 10. If an exception occurs in a try block and that exception is caught by a catch block, then the remaining catch blocks associated with that try block are ignored.

**Multiple Choice**

\_\_\_\_ 11. To develop a program to solve a problem, you start by \_\_\_\_.

|  |  |
| --- | --- |
| **a.** | **analyzing the problem** |
| b. | implementing the solution in Java |
| c. | designing the algorithm |
| d. | entering the solution into a computer system |

\_\_\_\_ 12. The first step in OOD is to identify the components called \_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | classes | c. | methods |
| **b.** | **objects** | d. | data |

\_\_\_\_ 13. Which of the following is a valid int value?

|  |  |  |  |
| --- | --- | --- | --- |
| **a.** | **3279** | c. | 3270.00 |
| b. | 3,279 | d. | -922337203684547758808 |

\_\_\_\_ 14. Which of the following is a valid statement?

(i) int num = new int(67);

(ii) String name = new ("Doe");

(iii) String name = "Doe";

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Only (i) | **c.** | **Only (iii)** |
| b. | Only (i) and (ii) | d. | Only (ii) and (iii) |

\_\_\_\_ 15. Suppose the String variable str points to the String object containment of "Sunny day" at the memory address 3600. Then the value of str is:

|  |  |  |  |
| --- | --- | --- | --- |
| **a.** | **the memory address 3600** | c. | 3600 + "Sunny day" |
| b. | "Sunny day" | d. | None of these |

\_\_\_\_ 16. Consider the following statements.

double x;

String y;

y = String.format("%.2f", x);

If x = 285.679, what is the value of y?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | "285.00" | **c.** | **"285.68"** |
| b. | "285.680" | d. | "285.068" |

\_\_\_\_ 17. What is the output of the following Java code?

int x = 0;

if (x > 0)

System.out.println("positive ");

System.out.println("zero ");

System.out.println("negative");

|  |  |  |  |
| --- | --- | --- | --- |
| a. | zero | **c.** | **zero negative** |
| b. | negative | d. | positive zero negative |

\_\_\_\_ 18. If str1 is “Hello” and str2 is “Hi”, which of the following could be a result of str1.compareTo(str2);?

a. 4 c. -1

**b. -4** d. 1

\_\_\_\_ 19. If str1 is “Hello” and str2 is “Hi”, which of the following could be a result of str2.compareTo(str1);?

**a. 4** c. -1

b. -4 d. 1

\_\_\_\_ 20. If str1 is “Hello” and str2 is “Hello”, which of the following could be a result of str1.compareTo(str2);?

a. 4 **c. 0**

b. -4 d. 1