411 Final Study

1. What will be displayed as a result of executing the following code?

int x = 5, y = 20;

x += 32; x = x+32 = 5+32 = 37

y /= 4; y = y/4 = 20/4 = 5

System.out.println("x = " + x + ", y = " + y);

**Ans.** x = 37, y = 5

2. What will be the values of x and y as a result of the following code?

int x = 25, y = 8;

x += y++; x = x+y = 25+8 = 33

y = Y+1 = 8+1 = 9

**Ans.** x = 33, y = 9

3. Assume that inputFile references a Scanner object that was used to open a file. Write the while loop condition to show the correct way to read data from the file until the end of the file is reached.

**Ans. While(!inputFile.EOF){…}**

4) Draw out a UML diagram to indicate the data type of a protected int variable called num\_Val and a private double variable called num\_Val2 for the class called Nums.

**Ans.**

Nums

# num\_Val: int

* num\_Val2: double

5) Describe the scope options of a public instance field, that is, its possible visibility to its class as well as posssible visibility to other classes as well.

**Ans. The instance methods and methods outside the class**

6) Look at the following code and determine what the call to super will do.

public class ClassB extends ClassA {

public ClassB() {

super(10);

}

}

**Ans. It will call the constructor of ClassA that receives an integer as an argument**

7) When applied to an array a[ ] of integers, the pseudo code

Boolean sort = true

int k = 0

While sort == true and k < a.length-1

If a[k] > a[k+1] Then

sort = false

End If

k = k +1

End While

A) will sort the array a[ ] in ascending (nondecreasing) order

**B) will determine if the array is arranged in ascending order**

C) will determine if the array is arranged in descending order

D) will sort the array a[ ] in descending (nonincreasing) order

8) The boolean contains(E element) method searches a ArrayList for a

given element. A correct and efficient implementation of this method

A) uses binary search to locate the element

B) returns 0 if the element is not found in the list

**C) uses sequential search to locate the element**

D) throws an exception if the element is not found in the list

9) What SQL operator can be used to perform a search for a substring?

A) STR B) SUB C) WHERE **D) LIKE**

10) What must you have installed on your system before you can use JDBC to access a database?

A) Java B) DBMS **C) Both A and B** D) Neither A nor B

11) What term refers to data that describes other data?

**A) meta data** B) abstract data C) micro data D) pseudo-data

Program- Write code to using a method called CompareMax where the method returns the largest non-negative int number from an array passed to the method. Code your method body in an efficient manner as possible.

/\*Return the largest value in an array of non-negative integers\*/

Int CompareToMax (int array[], int n) {

Int curMax, i;

/\*Make sure that there is at least one element in the array\*/

if (n<=0)

return -1;

/\*set the largest number so far to the first array value\*/

curMax = array[0];

/\*Compare every number with the largest number so far\*/

for (i = 1; i <n ; i++) {

if (array[i] > curMax) {

curMax = array[i];

}

}

Return curMax;

}