American University of Science & Technology

Department of Computer Science

**CSI 311L – Java Programming Lab**

**Spring 2011/2012**

**Lab Work 5**

**Problem1:**

a-You have written the following program. What will be the output of the program after compiling and running it?

public class Q2{

 public static void main( String arguments[] )

 {

 Amethod( arguments );

 }

 public void a method( String args[] ){

 System.out.println( args );

 System.out.println( args[ 1 ] );

 }

 }

A. The program will fail to compile.

B. Another method should be declared within the class.

C. The program will compile successfully.

D. main not found in the program

b-

Consider the following line of code:

 int[] x = new int[25];

After execution, which statement or statements are true?

A x[24] is 0.

B x[24] is undefined.

C x[25] is 0.

D x[0] is null.

E x.length is 25

**Problem 2:**

Write an application to draw the following:

 HELLO!!!!!

**Problem3:**

Write the class definitions and implementations for the following class specification.

* A Point is defined by its x and y coordinates.
* The class implementation should provide a default constructor.
* Overload the constructor to initialize an object attributes to values specified by the user.
* Provide set and get methods.
* Provide print method.

Write an application to create N **distinct** points. Then output a list of the points that fall in the first quadrant.

**Problem 4:**

Write the class definitions and implementations for the following class specifications.

|  |
| --- |
| Salesperson |
| Attributes | * **ID**: an integer to identify each staff.
* **fname**: a string of characters .
* **lname**: an stringof characters .
* **rank**: an integer to classify a staff position.(1,2,3)
* **BS**: a double value for a staff basic salary.
* **Count**: to count all instantiated objects.
 |
| Methods | * **Constructor.**
* **toString:** a function, to return the information about a salesperson as follows:

 **4567 Imad Faraj has rank 2 and salary 800$ and 744$ after tax*** Provide **set** and **get** functions.
* **Calculate \_salary:** compute a salesperson salary by deducting a tax from the basic salary depending on the rank as follows:
	1. for rank 1 a tax of 5% is deducted.
	2. for rank 2 a tax of 7% is deducted.
	3. for rank 3 a tax of 10% is deducted
 |

Write a java application to create N objects of the class salesperson and display a menu to do the following:

1. Calculate the total salesperson salaries.
2. Display the information about the salesperson with salaries less than the average.
3. Display a sorted list with respect to salesperson names.