**ITRW222**

KLASTOETS 6 /CLASS TEST6

28 Aug. 2017

Naam / Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Nr. / No:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Deel 1

Ontwerp ’n metode vir die klas SLL (agterop gedruk) genaamd: *insertSorted()* wat ‘n element op die regte posisie in ‘n gesorteerde lys sal voeg. Vb Lys voor: {2,6,7,8)

insertSorted (3)

Vb lys na: {2,3,6,7,}

Gebruik die 4 stap ontwerp metode (diagram, alemene en spesiale gevalle en kode)

Part 1

Design method for the class SLL (printed on reverse side) named: *insertSorted()* will add an element in the correct position in a sorted list. E.g. List before: {2,6,7,8)

insertSorted (3)

E.g. List after: {2,3,6,7,}

Use the 4 step design method (diagram; general, special cases and code)

public class SLL

{

private Element head; // list header

private Element tail;

public SLL()

{ head = null;

tail = null;

}

/\* you may use the following methods without giving the code\*/

public boolean append(Integer newElement)

public boolean prepend(Integer newElement)

public void showAll()

public class Element

{

private Integer data;

private Element next;

public Element(Integer param)

{

data = param;

}

}// end of inner class Node

}//end SinglyLinkedList outer class

Deel 2

Voltooi die toets program om die *insertSorted()* metode deeglik te toets in Java

Part 2

Complete the test program to thoroughly test the *insertSorted()* method in Java

public class Driver

{

public static void main(String [] args)

{