IDELI01

- Which statement below is wrong in the context of list data structure?

Select one:

- In the list, items are referenced by their value.
- Every item in the list, except for the head and tail, has an unique predecessor and an unique successor.
- List can be implemented using an array or a collection of linked nodes.
- A list is a sequence of zero or more items of the same type.

IDELI02

– In the ADT of the list data structure, getLength() method returns a/an _____ value?

Select one:

- Real number.
- Boolean.
- String.
- Integer.

IDELI03

– In the ADT of the list data structure, isEmpty() method returns a/an _____ value?

Select one:

- String.
- Real number.
- Boolean.
- Integer.

IDELI04

– Which statement is correct about array-based list?

Select one:

- Array-based is faster than linked-list in case of accessing list's items.

They can be implemented by Java language only.

Array-based is faster than linked-list in case of inserting new item into the list.

Elements of array-based list can be located dinamically and discontinuously.

IDELI05
– Which statement is correct about linked-list?

Select one:

Linked-list cost more than array-based list in term of deleting and inserting operations.

Elements of linked-list can be located dinamically and discontinuously.

Elements of linked-list must be stored in consecutive memory blocks.

Array-based list is more flexible in list's size than linked-list.

IDELI06
– In the ADT of the list data structure, remove(int post) method will?

Select one:

Remove an item at the pos position form the list.

Remove the last item form the list.

Remove the first item from the list.

Remove all items from the list.

IDELI08
– In a Singly Linked List that have only one node X, which value does X.getNext() return?

Select one:

null

The tail node

The head it self

undefined

IDELI09

– Suppose that X is a node in the middle of the Singly Linked List. Complete the code below to delete all nodes after X from the list?X.setNext(_____);

Select one:

- null.
- X.getNext().
- X.getNext().getNext().
- tail.

IDELI11

– Complete the code below to insert a new node X at the POS position of a Singly Linked List?

```
SLNode Y=traversing(POS); //travel to POS position
X.setNext( _______ );
Y.setNext(X);
```

Select one:

- Y.setNext(tail).
- Y.getNext().
- X.getNext().
- X.setNext(Y).

IDELI12

– Complete the code below to travel from the head node to the POS position of a Singly Linked List?

```
int c=1;
SLNode node = head;
while (c < POS)
{
    ________;
    node=node.getNext();
}
return node;
```

Select one:

- node++
- node=node.setNext(tail)
- c=c+1
- c=c.getNext()

IDELI14

– Which is the common form of a node X in a Doubly Linked List?

Select one:

- X(data, next)
- X(data)
- X(data, prev, next)
- X(data, prev)

IDELI15

– Which is common form of a node X in a Singly Linked List?

Select one:

- X(data, next)
- X(data)
- X(data, prev, next)
- X(data, prev)

IDELI16

– A mathematical-model with a collection of operations defined on that model is called?

Select one:

- Primitive data type.
- Data structure.
- Algorithm.
- Abstract Data Type.