North South University
Center of Excellence in Higher Education

Mosroor Mofiz Arman 1921079642 <mosroor.arman@northsouth.edu>

Q2-Dec21-S8

1 message

Google Forms <forms-receipts-noreply@google.com> Sun, Dec 19, 2021 at 12:32 PM
To: mosroor.arman@northsouth.edu

Thanks for filling out Q2-Dec21-S8

Here's what was received.

Q2-Dec21-S8

Time: 10 Minutes Mark: 15

Your email (**mosroor.arman@northsouth.edu**) was recorded when you submitted this form.

Enter your NSU ID: *

1921079642

Enter your Name: *

Mosroor Mofiz Arman

Enter your Section: *

08

MCQ Questions

How to access the elements of a linked list?

- ○ Randomly
- ◉ Sequentially
- ○ Exponentially
- ○ None of the above

A variant of the linked list where none of the nodes contains NULL pointer is called

- ◉ Circular linked list
- ○ Doubly linked list
- ○ Multiway linked list
- ○ None of the above

Which of the following data structure is needed to evaluate a postfix expression?

- ○ Heap
- ○ Tree
- ◉ Stack
- ○ Queeu

True/False: Linked list can be implemented without dynamic memory allocation.

- ○ TRUE
- ◉ FALSE

True/False: Stack data structure is used to implement a recursive function, where each call to function must return to the immediate last call.

- (●) TRUE
- ( ) FALSE

What is the complexity of the following code fragment?

```
int x = 0, i = N;
while (i > 0)
{
  x += i;
  i /= 2;
}
```

- ( ) O(logN)
- (●) O(N)
- ( ) O(NlogN)
- ( ) None of the above

Each node in a linked list contains a minimum of two fields, one field is data field and another field is a pointer to point _____ .

- ( ) Next data item
- (●) Next node
- ( ) The starting node of the list
- ( ) None of the above

While compared with arrays, the linked lists data structure offers significant savings in _____.

- ( ) Memory utilization
- ( )

Computational time

Both Memory utilization and computational time

None of the above

True/False: Linked lists are examples of compile-time memory allocation.

True

False

True/False: In the linked list implementation of the stack, the starting node of the list corresponds to the top of the stack.

True

False

In the linked list implementation of the queue, where will be a new item inserted?

At the start of the list

At the end of the list

At the middle of the list

None of the above

What is the time complexity of Inserting an item in a Queue that is implemented through linked list?

O(logn)

O(1)

O(n)

None of the above

What is the time complexity of Inserting an item in the middle of a Linked List?

- ○ O(logn)
- ○ O(1)
- ◉ O(n)
- ○ None of the above

What is the time complexity of deleting at end from a singly-linked list?

- ○ O(logn)
- ◉ O(1)
- ○ O(n)
- ○ None of the above

If the elements “P”, “Q”, “R”, "S" and “T” are inserted in a queue sequentially, and are removed one at a time, in what order will they be removed?

- ◉ PQRST
- ○ TSRQP
- ○ TPQRS
- ○ SRQPT