

### Question 1

Correct

Mark 1.00 out of 1.00

Flag question

Consider the usual algorithm for determining whether a sequence of parentheses is balanced. What is the maximum number of parentheses that will appear on the stack AT ANY ONE TIME when the algorithm analyzes:  $((()())())$

Select one:

- ☐ 4
- ☐ 2
- ☒ 3 ✓
- ☐ 1

### Question 2

Correct

Mark 1.00 out of 1.00

Flag question

Which of the following data structure is better for storing the sorted data on which often insert and deletion operations are performed?

Select one:

- ☐ Doubly linked-list
- ☐ Array
- ☐ Queue
- ☒ Linked list ✓

### Question 3

Correct

Mark 1.00 out of 1.00

Flag question

Which of the following is a mathematical-model with a collection of operations defined on that model and their implementations are hidden?

Select one:

- ☐ Primitive Data Type
- ☒ Abstract Data Type ✓
- ☐ Data Structure
- ☐ Algorithm

### Question 4

Correct

Mark 1.00 out of 1.00

Flag question

Let the following queue can accommodate maximum six elements with the following data:

front = 2; rear = 4;

queue =    ,    , L, M, N,    ;

What will happen after an enqueue operation takes place?

Select one:

- ☐ front = 3 rear = 5  
queue = L, M, N, O,    ,
- ☐ front = 3 rear = 4  
queue =    ,    , L, M, N, O,
- ☒ front = 2 rear = 5  
queue =    ,    , L, M, N, O ✓
- ☐ front = 2 rear = 4  
queue = L, M, N, O,    ,

### Question 5

Correct

Mark 1.00 out of 1.00

Flag question

The process of accessing data stored in a serial access memory is similar to manipulating data on a particular data structure. Which is that data structure?

Select one:

- ☐ Queue
- ☒ Stack ✓
- ☐ Binary tree
- ☐ Heap

## Question 6

Correct

Mark 1.00 out of  
1.00

Flag  
question

The post fix form of the expression  $(A + B) * (C * D - E) * F / G$  is?

Select one:

☐  $AB + CD * E - * F * G /$

☐  $AB + CD * E - F ** G /$

☐  $AB + CDE * - * F * G /$

☒  $AB + CD * E - FG /**$  ✓