

#### IDESQ01

- Which statement below is wrong concerning to stack data structure?

Select one:

- ☒ It is a First In First Out (FIFO) list.
- ☐ A stack contains a sequence of zero or more items of the same type.
- ☐ push() and pop() are two operations defined in Stack's ADT.
- ☐ List-based stack has no limit on total number of items of the stack.

#### IDESQ02

- Which statement below is wrong about queue data structure?

Select one:

- ☒ Dequeue is a special type of queue.
- ☐ It is a First In First Out (FIFO) list.
- ☐ Queue can be implemented using an array or a linked-list.
- ☐ enqueue() and dequeue() operations must be performed at one end of the queue.

#### IDESQ04

- Which statement is correct about array-based stack?

Select one:

- ☐ To add a new item into the stack: firstly, top is increased by 1, then current items will be shifted one slot to the right to make space for the new item.
- ☐ To add a new item into the stack: firstly, top is increased by 1, then current items will be shifted one slot to the left to make space for the new item.
- ☐ top is the first item of the array.
- ☐ top is the last item of the array.

#### IDESQ06

- In the ADT of the Queue data structure, dequeue() method will?

Select one:

- ☐ Remove an item from the queue at the rear position.
- ☐ Add a new item to the queue at the front position.
- ☒ Add a new item to the queue at the rear position.
- ☐ Remove an item from the queue at the front position.

#### IDESQ07

- In ADT of the Queue data structure, enqueue() method will?

Select one:

- ☐ Add a new item to the queue at the front position.
- ☐ Remove an item from the queue at the front position.
- ☐ Remove an item from the queue at the rear position.
- ☒ Add a new item to the queue at the rear position.

### IDESQ09

– Complete the code for the enqueue() method in array-based circular queue?

Select one:

- ☐ rear=rear+1
- ☒ rear=(rear+1)%maxSize
- ☐ front=front+1
- ☐ front=(front+1)%maxSize

### IDESQ08

– Which statement is wrong about array-based circular queue?

Select one:

- ☐ when front=rear the queue is empty.
- ☐ rear can be wrap around to the beginning of the array.
- ☐ front can be wrap around to the beginning of the array.
- ☒ when front=rear the queue is full.

### IDESQ10

– Complete the code for the dequeue() method in array-based circular queue?

```

public void dequeue()
{
    if (!isEmpty())
    {
        int pos=front;
        _____;
        return items[pos]
    }
}

```

Select one:

- ☐ front=front+1
- ☐ rear=rear+1
- ☒ front=(front+1)%maxSize
- ☐ rear=(rear+1)%maxSize

#### IDESQ11

– Which statement is wrong about list-based queue?

Select one:

- ☐ front is the head and rear is the tail of the linked-list.
- ☐ A linked-list is used to implement the queue.
- ☐ Queue is empty when front=rear.
- ☒ List-based queue ADT does not have isFull() operation

#### IDESQ13

– Suppose you push 10, 20, 30, 40 onto a stack, then you pop three items. Which one is left on the stack?

Select one:

- ☒ 40
- ☐ 30
- ☐ 10
- ☐ 20

#### IDESQ15

– The end which a new element gets added to a queue is called

Select one:

☐ Bottom

☐ Top

☒ Rear

☐ Front

IDESQ16

– What is the result of the following operation on the stack S: S.peek(S.push(X))?

Select one:

☒ X.

☐ S.push(X).

☐ Null.

☐ S.top.