Question 22

Not yet answered

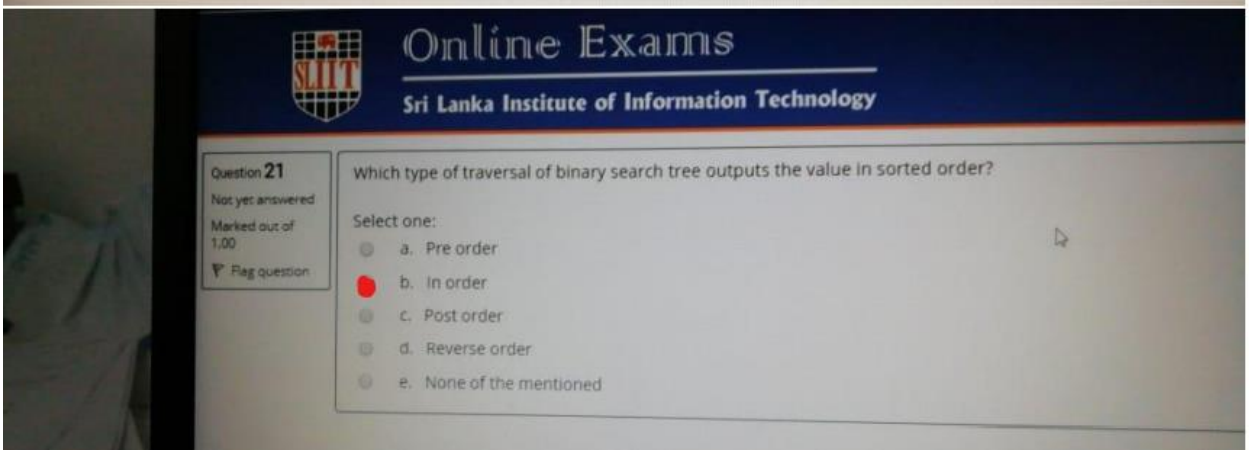
Marked out of 1.00

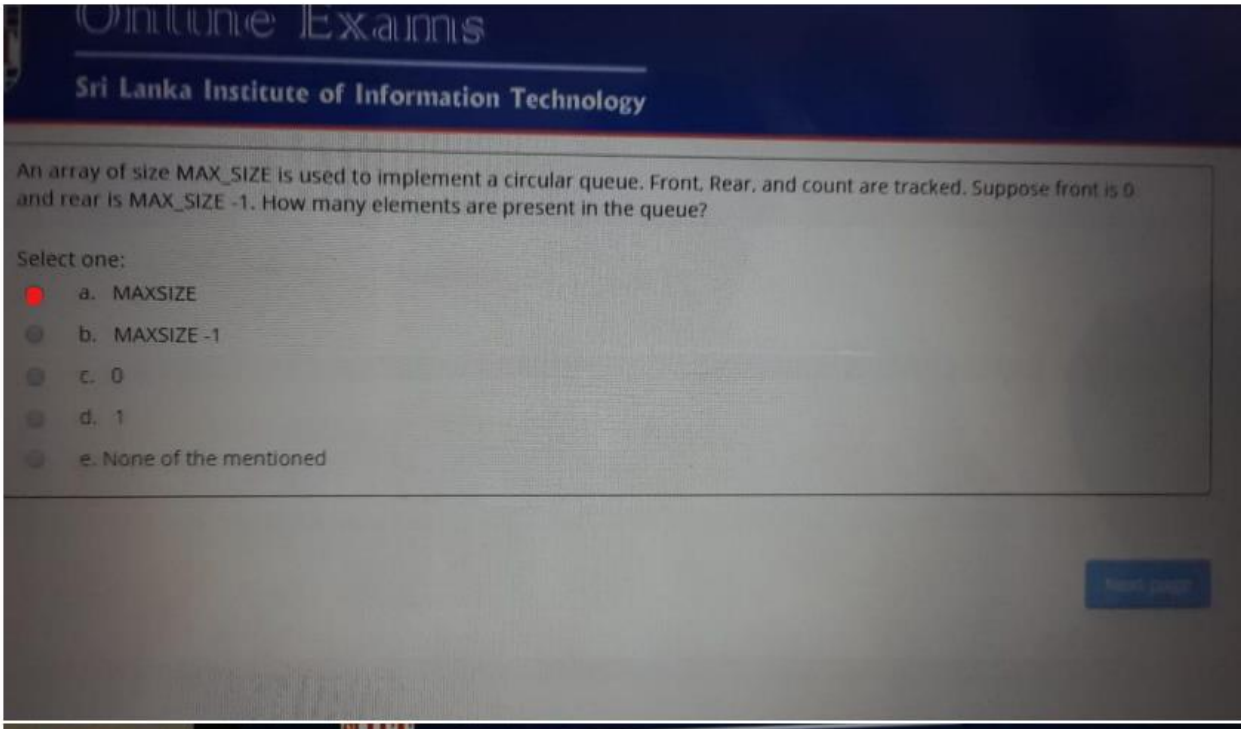
Flag question

Which of the following data structure is used to compute the solution of recursive algorithms?

Select one:

- a. Stacks
- b. Queues
- c. Trees
- d. Linked Lists
- e. Arrays

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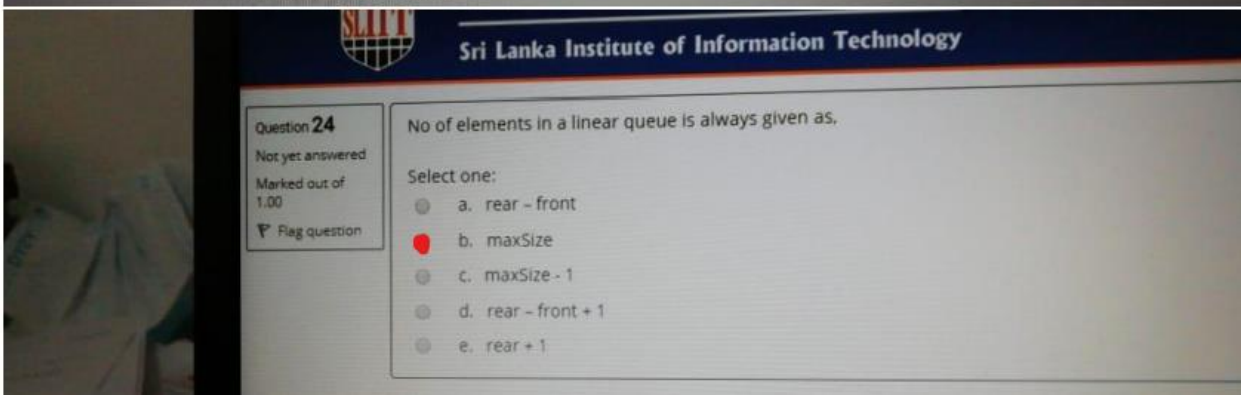
An array of size MAX_SIZE is used to implement a circular queue. Front, Rear, and count are tracked. Suppose front is 0 and rear is MAX_SIZE -1. How many elements are present in the queue?
Select one:
a. MAXSIZE
b. MAXSIZE -1
c. 0
d. 1
e. None of the mentioned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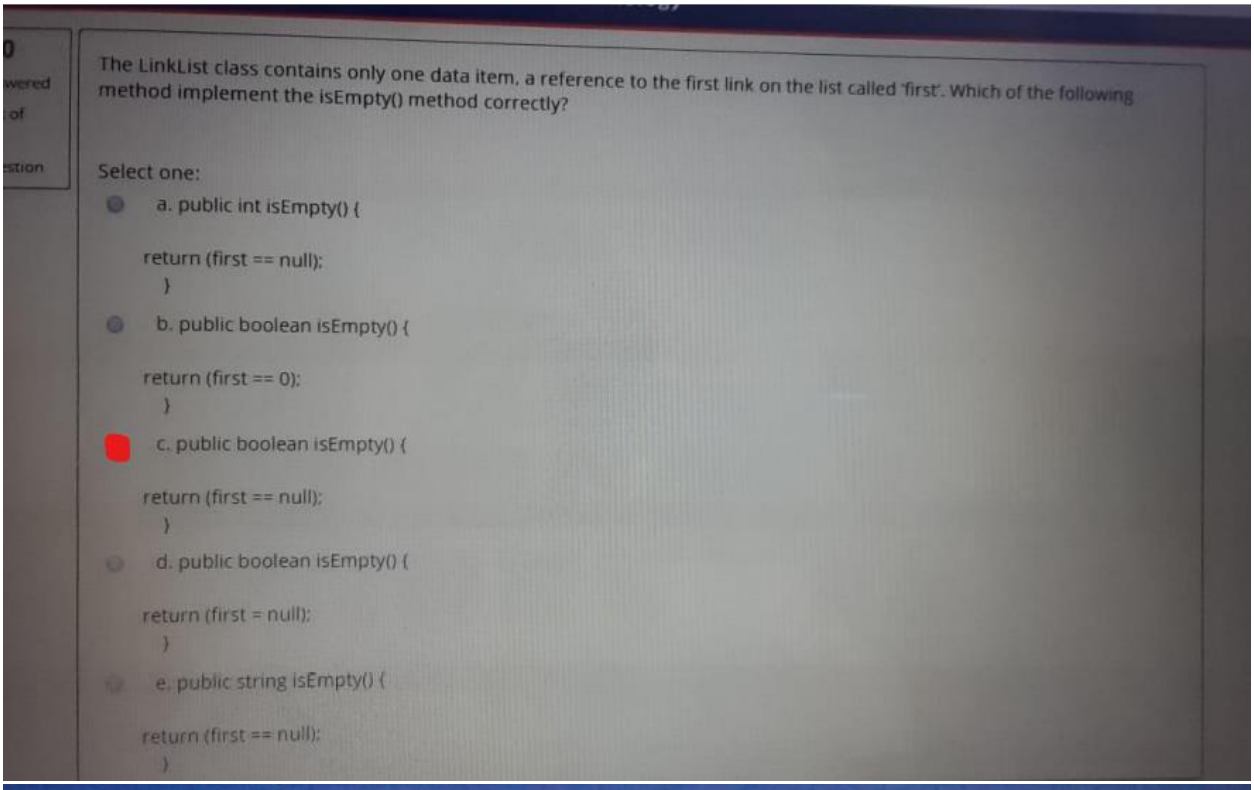
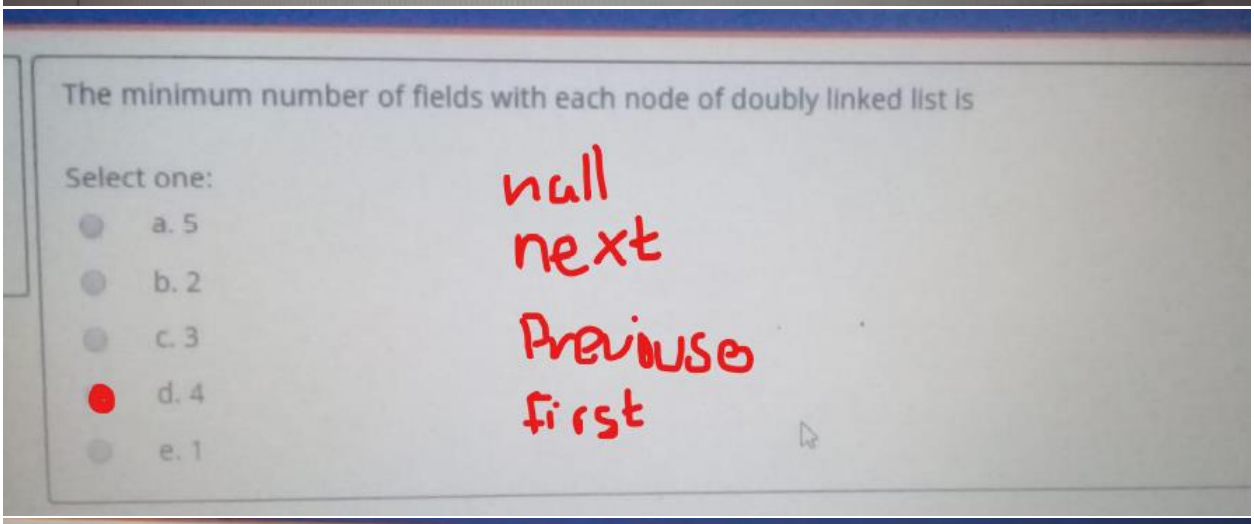
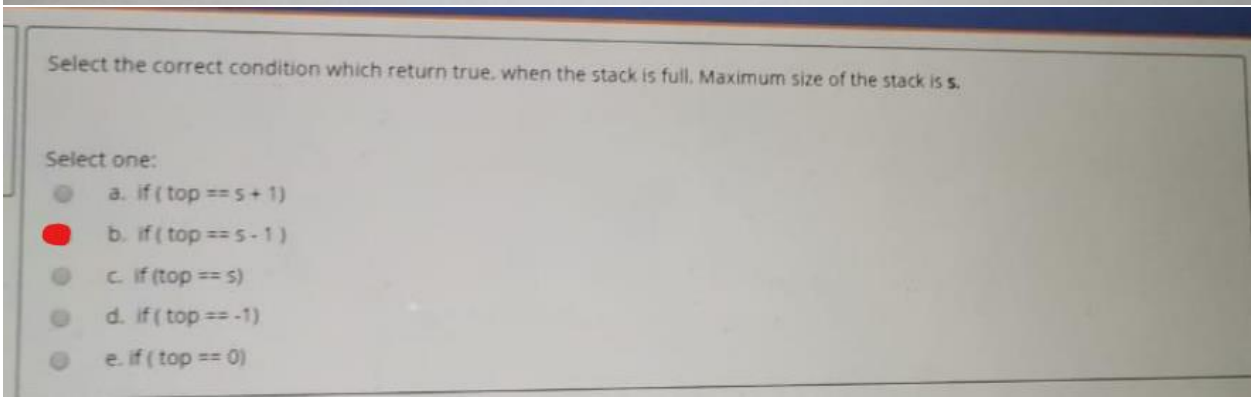
Question 24
Not yet answered
Marked out of 1.00
Flag question
No of elements in a linear queue is always given as,
Select one:
a. rear – front
b. maxSize
c. maxSize - 1
d. rear – front + 1
e. rear + 1


The LinkList class contains only one data item, a reference to the first link on the list called 'first'. Which of the following method implement the isEmpty() method correctly?
Select one:
a. public int isEmpty() {
return (first == null);
}
b. public boolean isEmpty() {
return (first == 0);
}
c. public boolean isEmpty() {
return (first == null);
}
d. public boolean isEmpty() {
return (first = null);
}
e. public string isEmpty() {
return (first == null);
}


The minimum number of fields with each node of doubly linked list is
Select one:
a. 5
b. 2
c. 3
d. 4
e. 1
null
next
Previuse
first


Select the correct condition which return true, when the stack is full. Maximum size of the stack is s.
Select one:
a. if (top == s + 1)
b. if (top == s - 1)
c. if (top == s)
d. if (top == -1)
e. if (top == 0)

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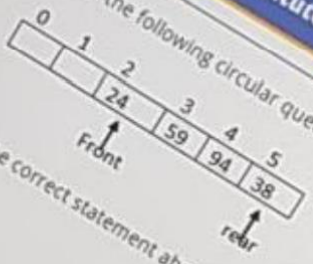
Flag question

Consider the following circular queue.



Select the correct statement about the above queue.

Select one:

- a. The next value of the rear will be 5
- b. The next value of the rear will be 6
- c. The next value of the rear will be 1
- d. The next value of the rear will be invalid
- e. The next value of the rear will be 0

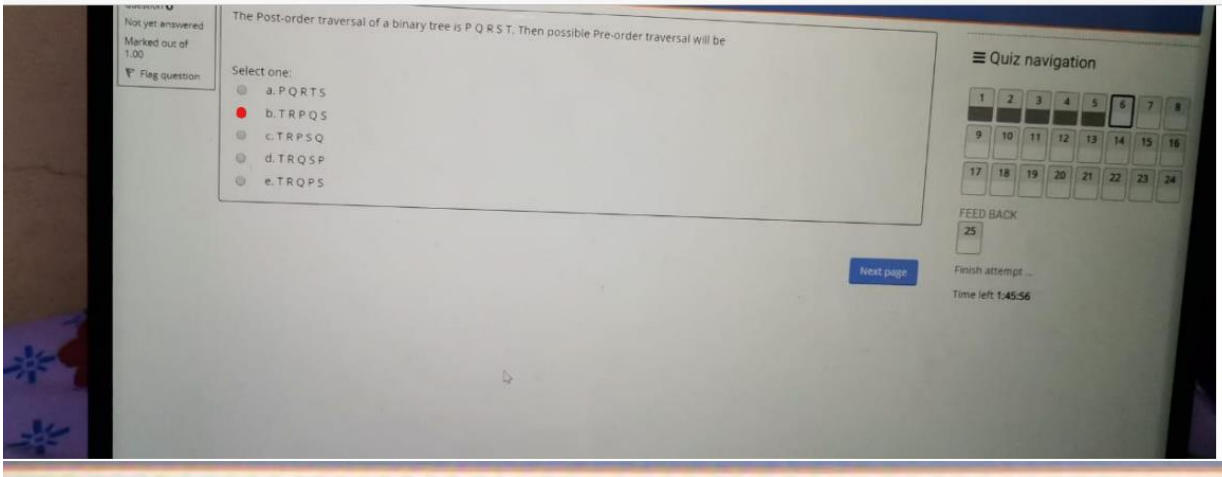
Consider the following code segment.

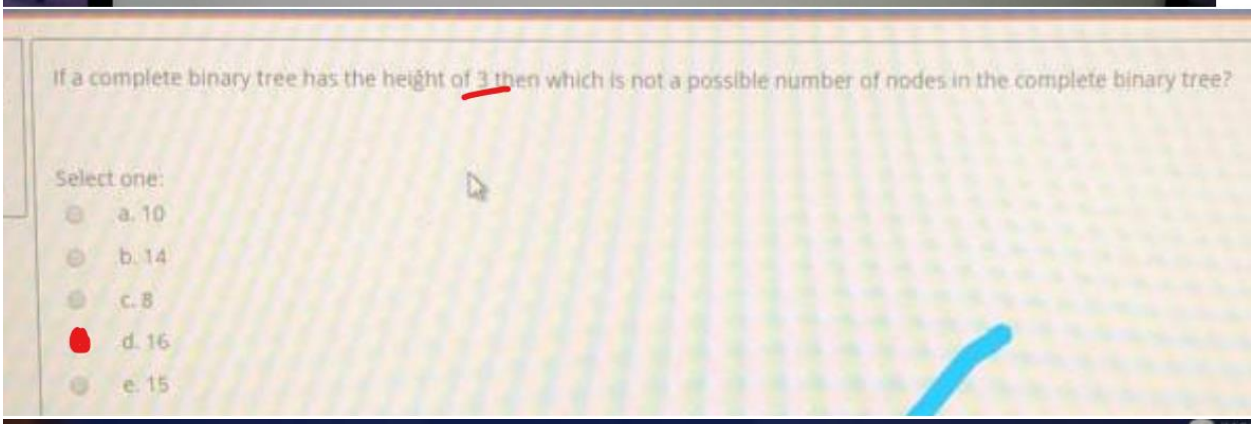
```
StackX s1 = new StackX(10);
StackX s2 = new StackX(10);
for(int i=0; i<5; i++) {
        s1.push(i);
        s2.push(s1.peek());
        s2.push(s1.pop());
}
```

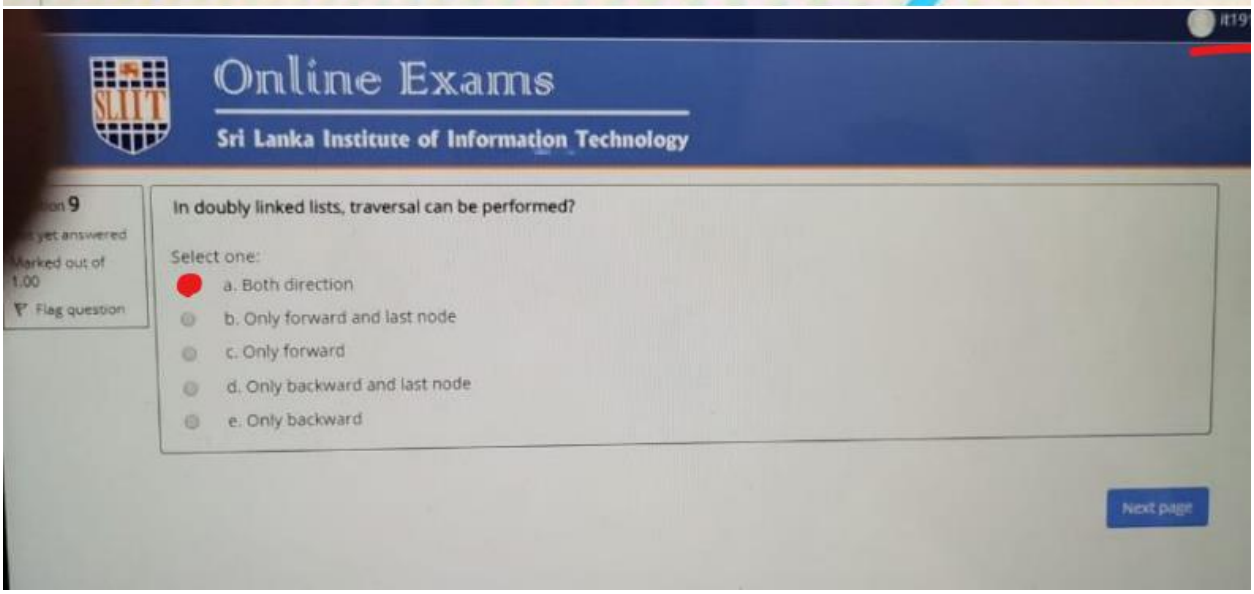
Which of the following statement is correct after performing the above code segment?

Select one:

- a. s1 is empty and s2 is empty
- b. s1 and s2 stacks contain the same numbers
- c. s1 is full and s2 is full
- d. s2 is empty and s1 is full
- e. s1 is empty and s2 is full


Not yet answered
Marked out of 1.00
Flag question
The Post-order traversal of a binary tree is P Q R S T. Then possible Pre-order traversal will be
Select one:
a. P Q R T S
b. T R P Q S
c. T R P S Q
d. T R Q S P
e. T R Q P S
Next page
Quiz navigation
1 2 3 4 5 6 7 8
9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24
FEED BACK
25
Finish attempt ...
Time left 1:45:56


If a complete binary tree has the height of 3 then which is not a possible number of nodes in the complete binary tree?
Select one:
a. 10
b. 14
c. 8
d. 16
e. 15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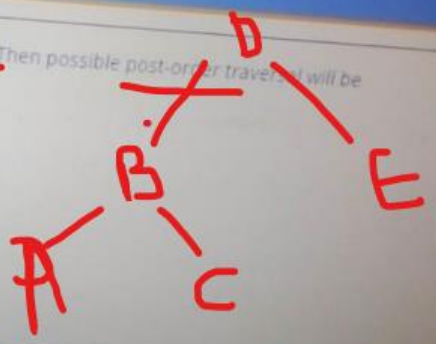
Not yet answered
Marked out of 1.00
Flag question
In doubly linked lists, traversal can be performed?
Select one:
a. Both direction
b. Only forward and last node
c. Only forward
d. Only backward and last node
e. Only backward
Next page

Information Technology

The In-order traversal of a binary tree is A B C D E. Then possible post-order traversal will be

Select one:

- a. A C B E D
- b. A C B D E
- c. D B E A C
- d. D B A E C
- e. D B A C E



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Consider the following code segment.

```
StackX s1 = new StackX(10);
StackX s2 = new StackX(10);
for(int i=0; i<5; i++) {
        s1.push(i);
        s2.push(s1.peek());
        s2.push(s1.pop());
}
```

Which of the following statement is correct after performing the above code segment?

Select one:

- a. s1 is empty and s2 is full
- b. s1 is full and s2 is full
- c. s2 is empty and s1 is full
- d. s1 is empty and s2 is empty
- e. s1 and s2 stacks contain the same numbers

If $T(n) = 25T(n/5) + cn^2$ find the solution for T(n) using Master Th

$$T(n) = \begin{cases} \Theta\left(n^{\log_b a}\right) & f(n) = O\left(n^{\log_b a - \varepsilon}\right) \rightarrow f(n) < n^{\log_b a} \\ \Theta\left(n^{\log_b a} \lg n\right) & f(n) = \Theta\left(n^{\log_b a}\right) \rightarrow f(n) = n^{\log_b a} \\ \Theta(f(n)) & f(n) = \Omega\left(n^{\log_b a + \varepsilon}\right) \rightarrow f(n) > n^{\log_b a} \\ & \text{if } af(n/b) \le cf(n) \text{ for } c < 1 \text{ and large } n \end{cases}$$

Select one:

a. $T(n) = \theta(cn)$

b. $T(n) = \Theta(cn^2)$

c. $T(n) = \Theta(n^2 \log_2 n)$

d. $T(n) = \Theta(n^2 \log_{10} n)$

e. $T(n) = \Theta(n^2)$

n 4

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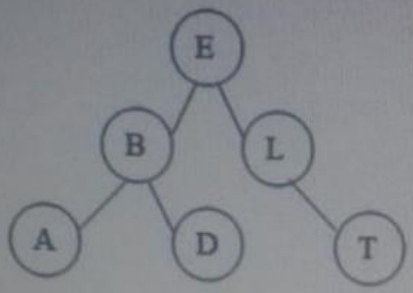
g question

Consider the following binary search tree



If you add G to this tree. it will become a

Select one:

- a. Complete binary tree
- b. Max Heap
- c. Full binary tree
- d. Skewed binary tree
- e. Both a) and c) above

Consider the below method of a linear queue data structure. What can

```
public int XX() {
    if (nItems == 0) {
        System.out.println("Queue is empty");
        return -99;
    }
    else {
        return queArray[front];
    }
}
```

Select one:

- a. peekFront()
- b. remove()
- c. insert()
- d. pop()
- e. delete()

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Select the correct condition which return true, when the stack is full. Maximum size of the stack is **s**.

Select one:

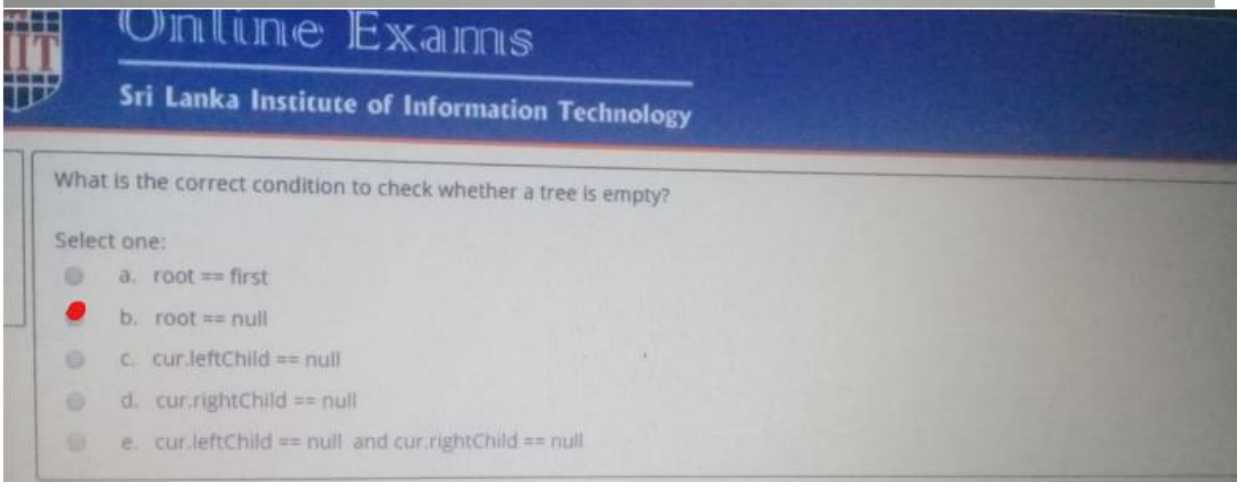
- a. if (top == s - 1)
- b. if (top == 0)
- c. if (top == -1)
- d. if (top == s + 1)
- e. if (top == s)

Consider the below method of a linear queue data structure. What can be the method "XX"?

```
public void XX(int j) {
    if (rear == maxSize - 1)
        System.out.println("Queue is full");
    else {
        queArray[++rear] = j;
        nItems++;
    }
}
```

Select one:

- a. insert()
- b. peekFront()
- c. delete()
- d. pop()
- e. remove()



Which of the following operation will not change the value of top of a st

Select one:

a. Pop

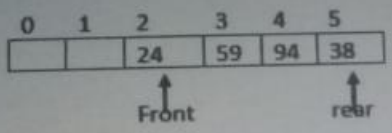
b. Peek

c. None of the above

d. Print

e. Push

Consider the following circular queue.



Select the correct statement about the above queue.

Select one:

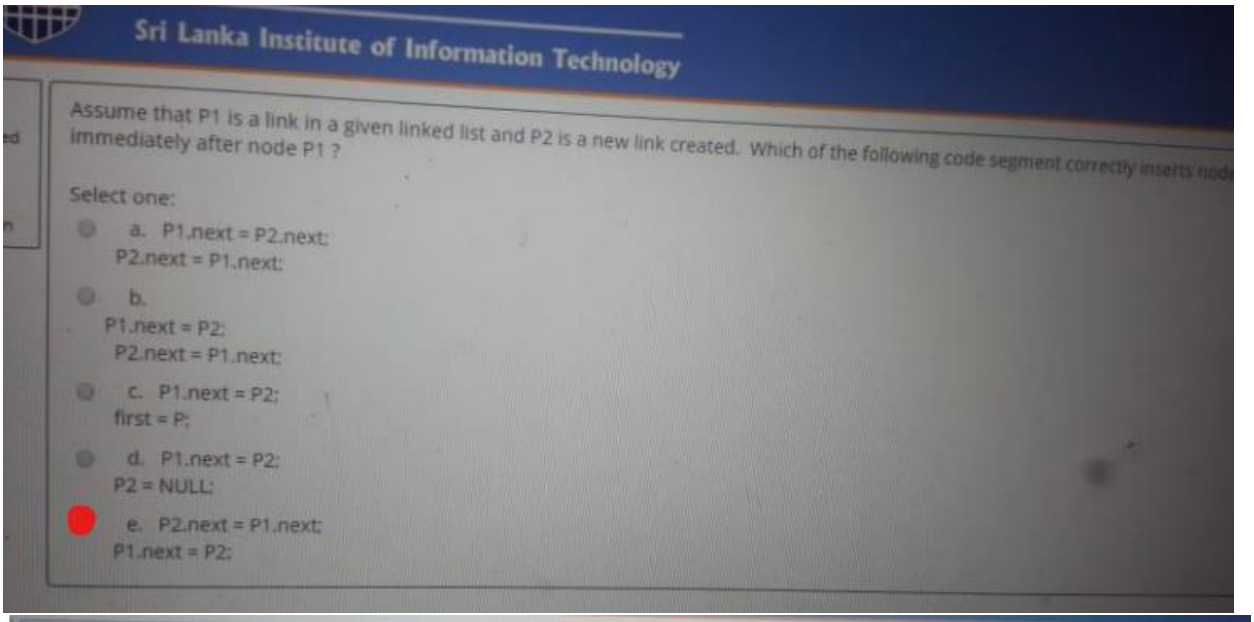
a. The next value of the rear will be 5

b. The next value of the rear will be 1

c. The next value of the rear will be 0

d. The next value of the rear will be invalid

e. The next value of the rear will be 6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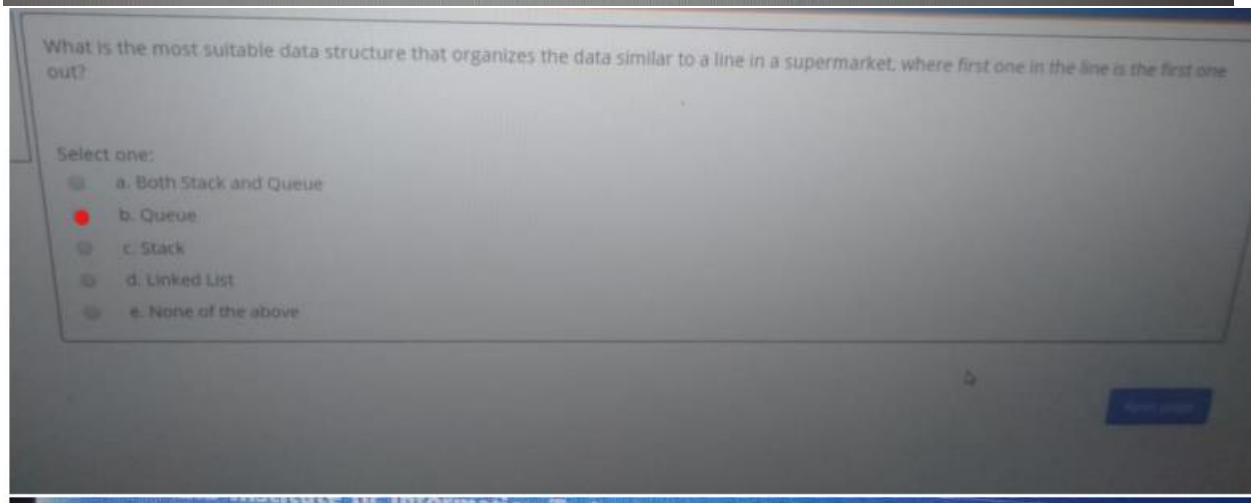
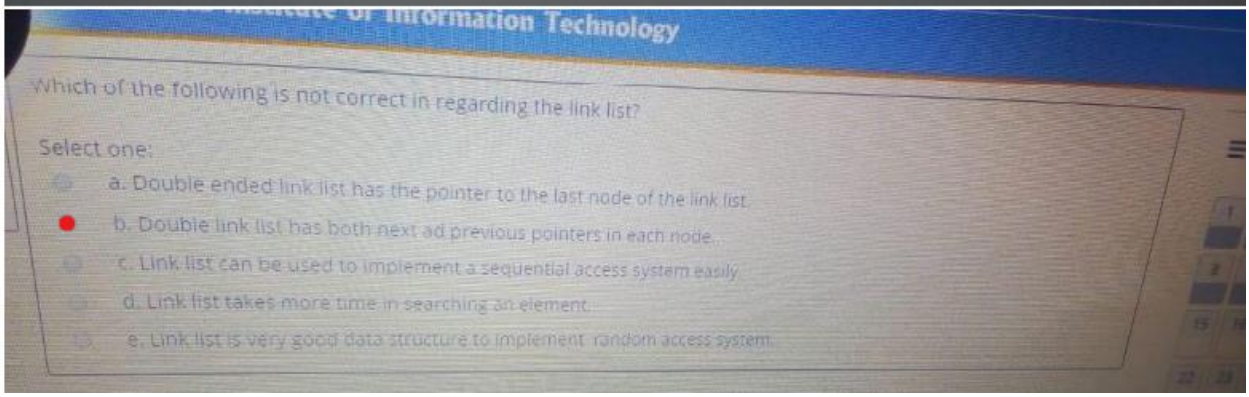
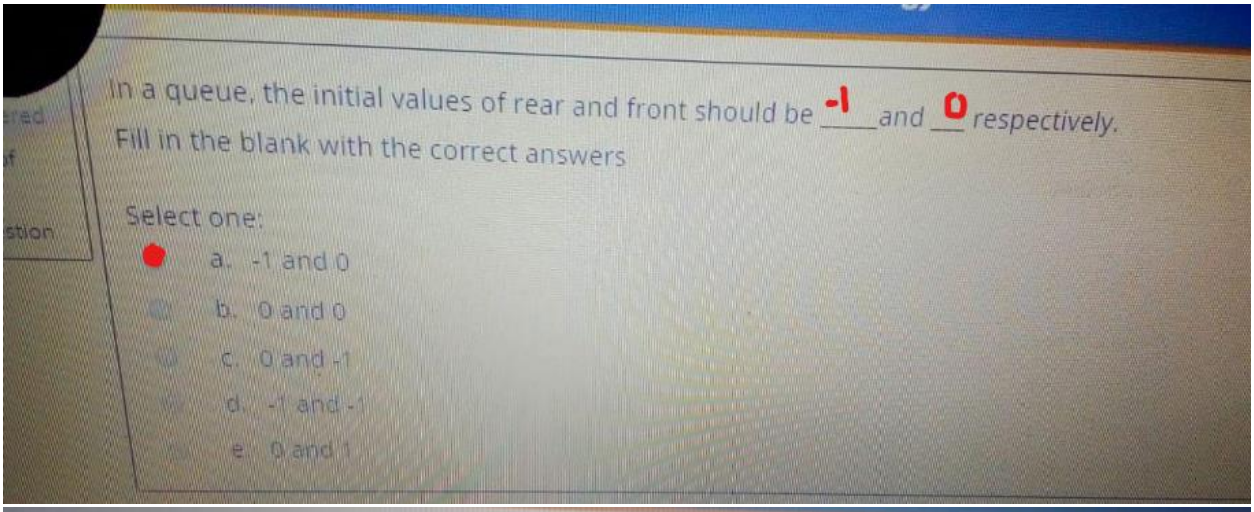
Assume that P1 is a link in a given linked list and P2 is a new link created. Which of the following code segment correctly inserts node
immediately after node P1 ?
Select one:
a. P1.next = P2.next;
P2.next = P1.next;
b.
P1.next = P2;
P2.next = P1.next;
c. P1.next = P2;
first = P;
d. P1.next = P2;
P2 = NULL;
e. P2.next = P1.next;
P1.next = P2;


What is the most suitable data structure that organizes the data similar to a line in a supermarket, where first one in the line is the first one
out?
Select one:
a. Both Stack and Queue
b. Queue
c. Stack
d. Linked List
e. None of the above


Information Technology
Which of the following is not correct in regarding the link list?
Select one:
a. Double ended link list has the pointer to the last node of the link list.
b. Double link list has both next ad previous pointers in each node.
c. Link list can be used to implement a sequential access system easily.
d. Link list takes more time in searching an element.
e. Link list is very good data structure to implement random access system.



Which of the following operation will not change the value of **top** of a stack?

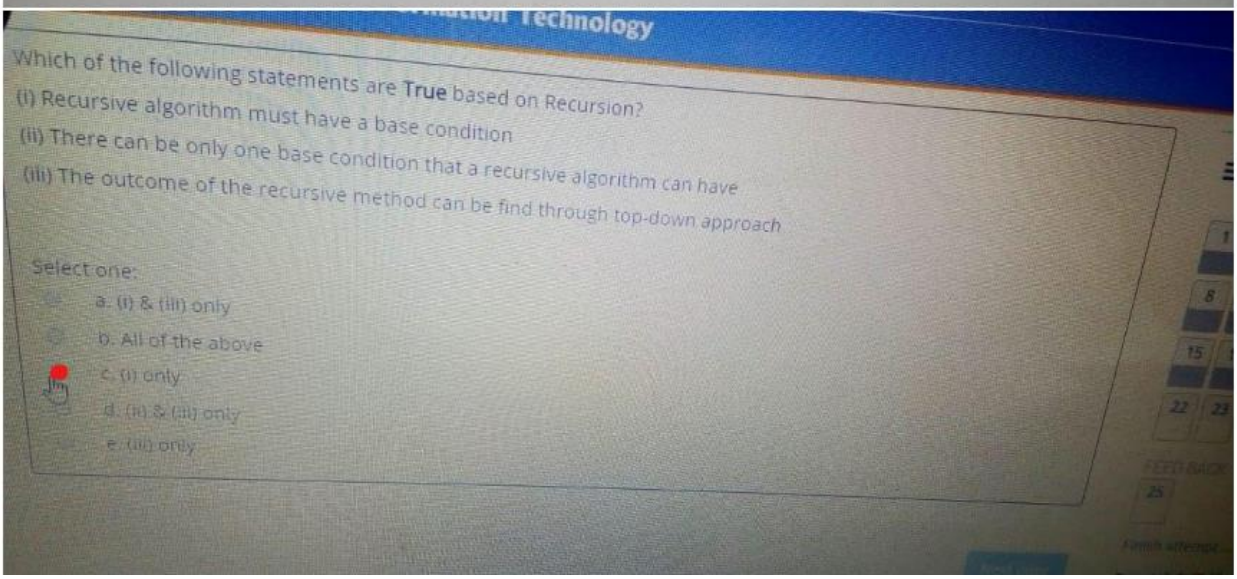
Select one:

- a. None of the above
- b. Push
- c. Peek
- d. Pop
- e. Print

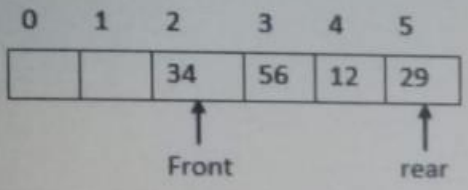
Which of the following data structure is used to compute the solution of recursive algorithms?

Select one:

- a. Trees
- b. Stacks
- c. Linked Lists
- d. Arrays
- e. Queues



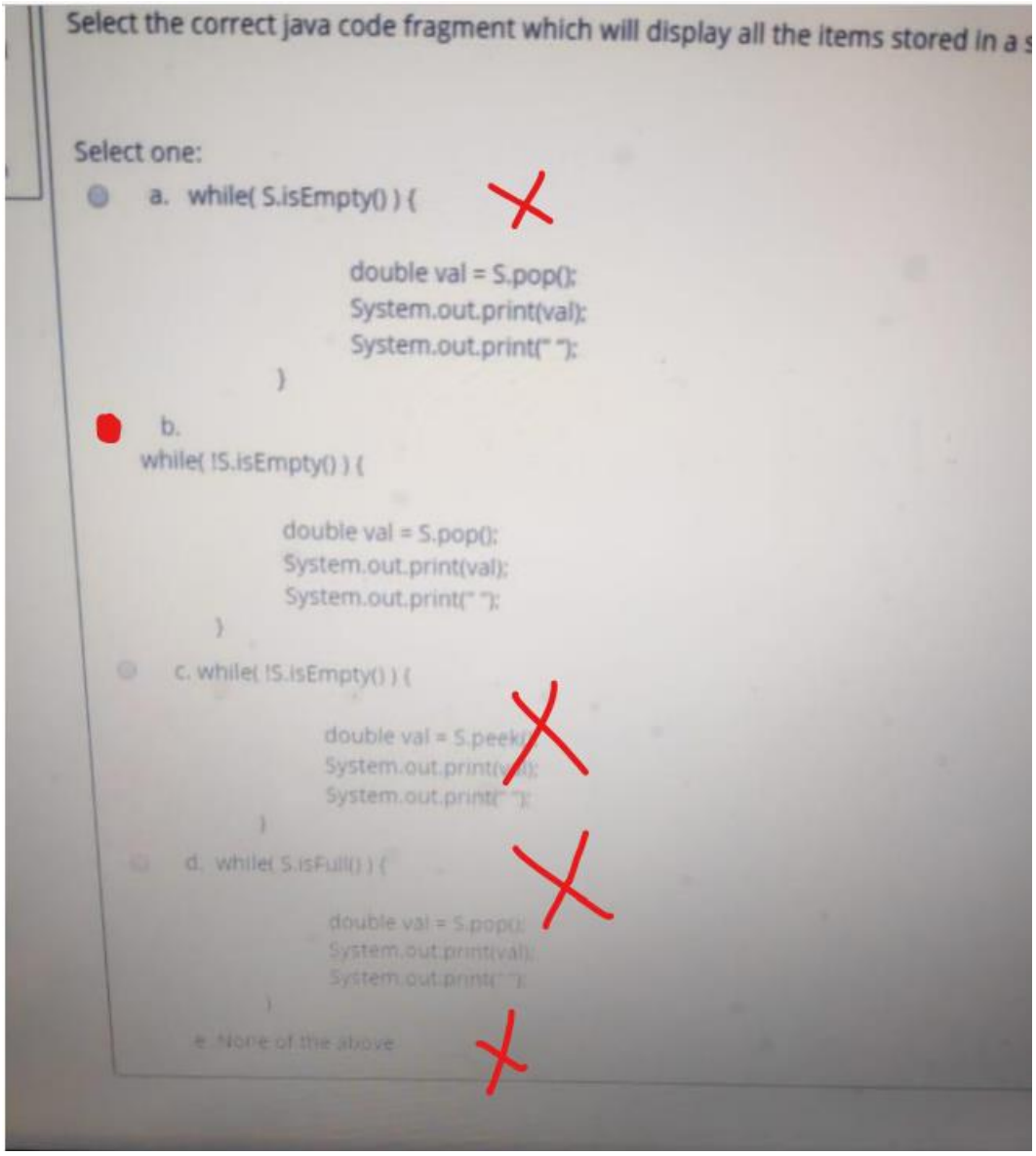
Consider the following linear queue.



Select the **incorrect** statement about the above queue.

Select one:

- a. None of the above
- b. Queue is full
- c. Can insert two more data items
- d. The next item remove from the queue is 34
- e. The queue can store only 6 items



Select the correct java code fragment which will display all the items stored in a s

Select one:

a. while(S.isEmpty()) {

```
        double val = S.pop();
        System.out.print(val);
        System.out.print(" ");
    }
```

b.

```
while( !S.isEmpty() ) {

        double val = S.pop();
        System.out.print(val);
        System.out.print(" ");
    }
```

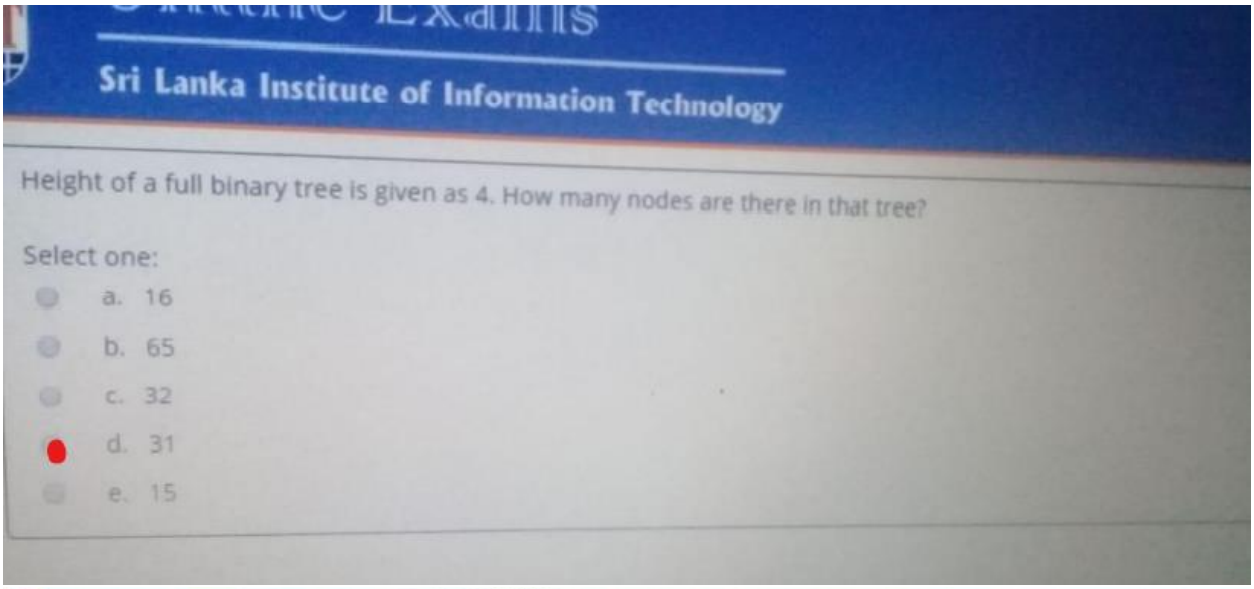
c. while(!S.isEmpty()) {

```
        double val = S.peek();
        System.out.print(val);
        System.out.print(" ");
    }
```

d. while(S.isFull()) {

```
        double val = S.pop();
        System.out.print(val);
        System.out.print(" ");
    }
```

e. None of the above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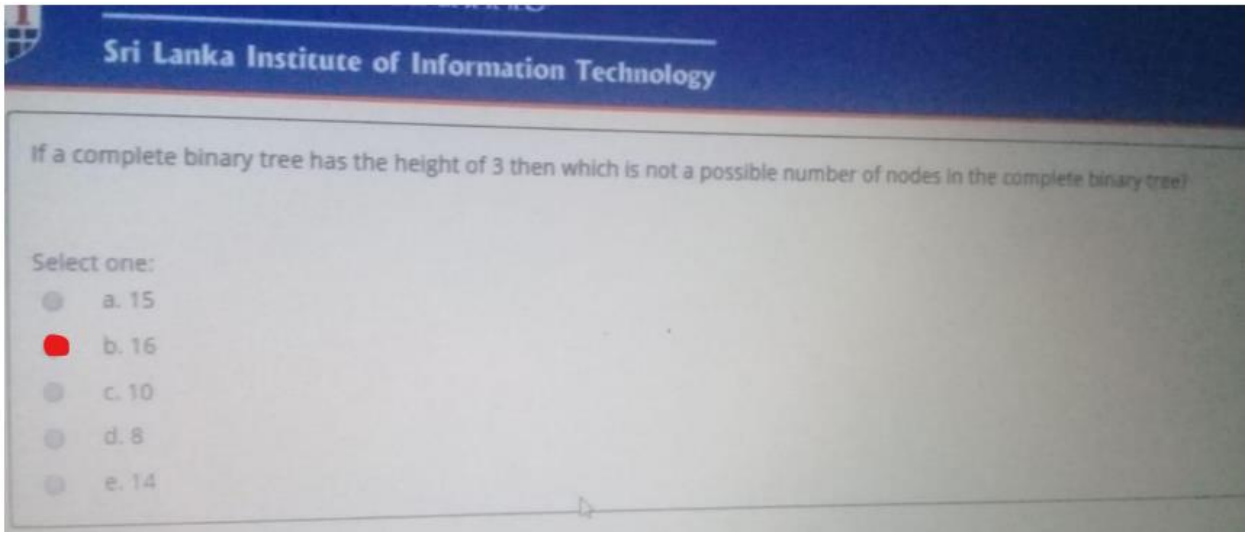
Height of a full binary tree is given as 4. How many nodes are there in that tree?
Select one:
a. 16
b. 65
c. 32
d. 31
e. 15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If a complete binary tree has the height of 3 then which is not a possible number of nodes in the complete binary tree?
Select one:
a. 15
b. 16
c. 10
d. 8
e. 14