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Consider the below string matching algorithm where T - text and P - pattern. Find out th

```
X(T, P)
1  n = T.length
2  m = P.length
3  for s = 0 to n-m
4      if P[1..m] = T[s+1..s+m]
5          print "Pattern occurs with shift" s
```

Select one:

- a. $O(n^2)$
- b. O(1)
- c. O(nm)
- d. O((n-m+1)m)
- e. O(n-m+1))

Question 12

Not yet answered

Marked out of 2.00

Flag question

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

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

Select one:

a. delete()

b. remove()

c. insert()

d. peekFront()

e. push()

Next page

≡ Quiz

MCQ SE

1 2 8 9 15 16 22 23

MCQ S

25 26 32 33

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36

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out of

question

Consider the following max heap represented in an array

1	2	3	4	5	6	7
67	55	60	24	38	45	48

A new value is added to the heap as the last element (heap size will be incremented by one) without affecting the max heap property.

Which one of the following can be the new value?

Select one:

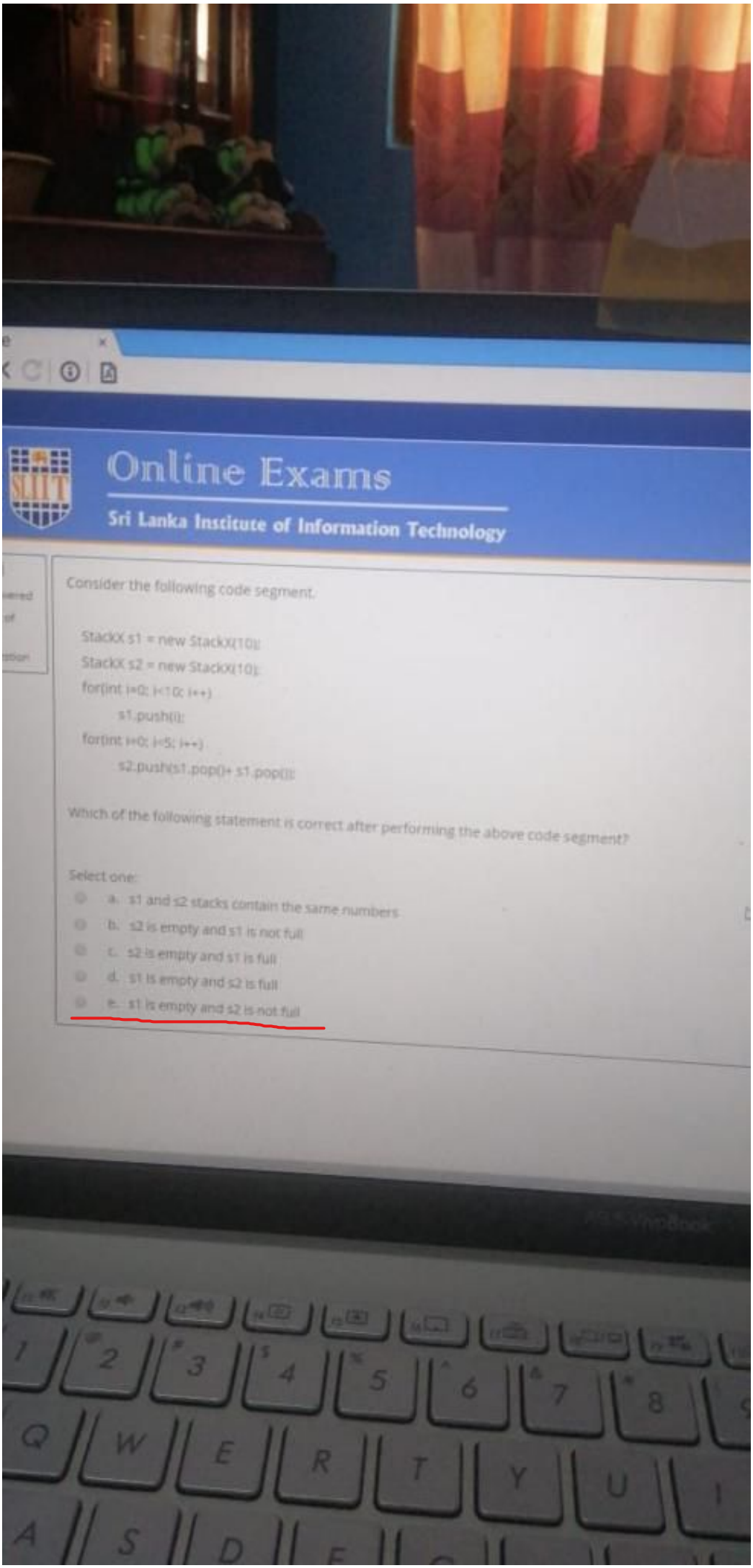
a. 26

b. 30

c. 10

d. 36

e. 50


Online Exams
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Consider the following code segment.
StackX s1 = new StackX(10);
StackX s2 = new StackX(10);
for(int i=0; i<10; i++)
s1.push(i);
for(int i=0; i<5; i++)
s2.push(s1.pop()+ s1.pop());
Which of the following statement is correct after performing the above code segment?
Select one:
a. s1 and s2 stacks contain the same numbers
b. s2 is empty and s1 is not full
c. s2 is empty and s1 is full
d. s1 is empty and s2 is full
e. s1 is empty and s2 is not full

Find the values of the below array after converting to a max heap

1	2	3	4	5	6	7	8
6	32	38	10	18	20	22	5

Select one:

- a. 32 18 38 10 6 20 22 5
- b. 38 32 6 10 18 20 22 5
- c. 38 32 22 10 18 20 6 5
- d. 38 32 20 10 18 6 22 5
- e. 5 6 10 18 20 22 32 38

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18
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out of
question

Which of the following is false about Kruskal's algorithm?

Select one:

a. Edges are selected in increasing order of their weights

b. It is a greedy algorithm

c. It is used to find the Minimum Cost Spanning Tree

d. It accepts cycles when finding the Minimum Cost Spanning Tree

e. None of the mentioned

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MCQ SECTION II

25 26 27
32 33 34
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Question 14

Not yet answered

Marked out of 2.00

Flag question

Following are the time complexity of 5 algorithms in Big O notation. Find the correct order when they are arranged from the most efficient algorithm to the least efficient algorithm.

$O(N^2)$ $O(\log N)$ $O(N \log N)$ $O(N)$ $O(N^3)$

Select one:

a. $O(\log N)$ $O(N \log N)$ $O(N)$ $O(N^2)$ $O(N^3)$

b. $O(\log N)$ $O(N)$ $O(N \log N)$ $O(N^2)$ $O(N^3)$

c. $O(N \log N)$ $O(\log N)$ $O(N)$ $O(N^2)$ $O(N^3)$

d. $O(N \log N)$ $O(N)$ $O(\log N)$ $O(N^2)$ $O(N^3)$

e. $O(N)$ $O(\log N)$ $O(N \log N)$ $O(N^2)$ $O(N^3)$

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MCQ SECTIO

1 2 3

8 9 10

15 16 17

22 23 24

MCQ SECTION II

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32 33 34

SHORT ANSWER QU

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ESSAY QUESTION

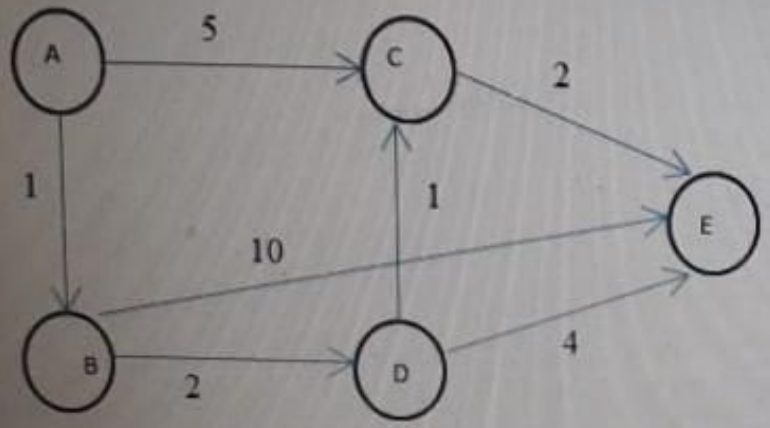
Question 23

Not yet answered

Marked out of 2.00

Flag question

Consider the below graph and apply the Dijkstra's algorithm to find the shortest path from the source vertex A to C and A to E



Select one:

a. 4 and 6

b. 5 and 11

c. 5 and 7

d. 4 and 7

e. 5 and 6

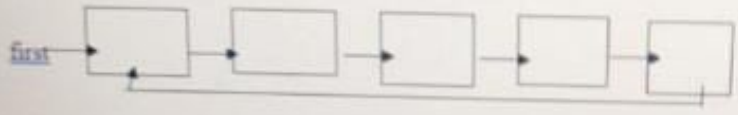
Consider the below Quick Sort algorithm with errors. Find the line with the error and the correction

```
QUICKSORT (A,p,r)
1 if p < r
2    q = PARTITION(A, p, r)
3    QUICKSORT (A, p, q)
4    QUICKSORT (A, q+1, r)
```

Select one:

- a. Line 4 should be corrected as **QUICKSORT** (A, q, r)
- b. Line 1 should be corrected as if p > r
- c. Line 2 should be corrected as q = **PARTITION**(A, p, r-1)
- d. Line 3 should be corrected as **QUICKSORT** (A, p-1, q)
- e. Line 3 should be corrected as **QUICKSORT** (A, p, q-1)

Given below is a circular link list. Following method has been written to display all the links. Fill in the blank with t
correct condition.




```
Link cur = first;
if (cur == NULL)
    return;
```

[ ]

Select one:

a.
```
while (cur.next != first){
  cur.displayLink();
  cur = cur.next;
}
```

b.
```
while (cur.next != first){
  cur.displayLink();
}
cur.displayLink();
```

c.
```
while (cur != NULL){
  cur.displayLink();
  cur = cur.next;
}
```

d.
```
while (cur.next != first){
  cur.displayLink();
  cur = cur.next;
}
```

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Question 31

Not yet answered

Marked out of 3.00

Flag question

Which one of the following is considered as the min heap property?

Select one:

a. A[PARENT(i)] >= A[i]

b. A[PARENT(i)] <= A[i]

c. A[PARENT(i)] = = A[i]

d. A[LEFT_CHILD(i)] < A[i] and A[RIGHT_CHILD(i)] > A[i]

e. A[i] <= A[PARENT(i)]

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Question **14**

Not yet answered

Marked out of 2.00

Flag question

What is the worst case running time of Merge Sort algorithm?

Select one:

a. O(logn)

b. O(n)

c. O(nlogn)

d. $O(n^2)$

e. O(1)

Next

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Question 13

Not yet answered

Marked out of 2.00

Flag question

Consider the below **HEAPSORT** algorithm and find out the run time complexity. Run time complexity of BUILD_MAX_HEAP is O(n) and MAX_HEAPIFY is O(log n)

```
HEAPSORT(A)
1.      BUILD_MAX_HEAP[A]
2.      for  i = A.length down to 2
3.              exchange A[1] with A[i]
4.              A.heap_size = A.heap_size - 1;
5.              MAX_HEAPIFY(A, 1)
```

Select one:

- a. O(n) + O(log n)
- b. O(log n)
- c. O(1)
- d. O(nlog n)
- e. O(n)

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Question 22

Not yet answered

Marked out of 2.00

Flag question

Which of the following is false about Kruskal's algorithm?

Select one:

a. Edges are selected in increasing order of their weights

b. It is a greedy algorithm

c. It is used to find the Minimum Cost Spanning Tree

d. It accepts cycles when finding the Minimum Cost Spanning Tree

e. None of the mentioned

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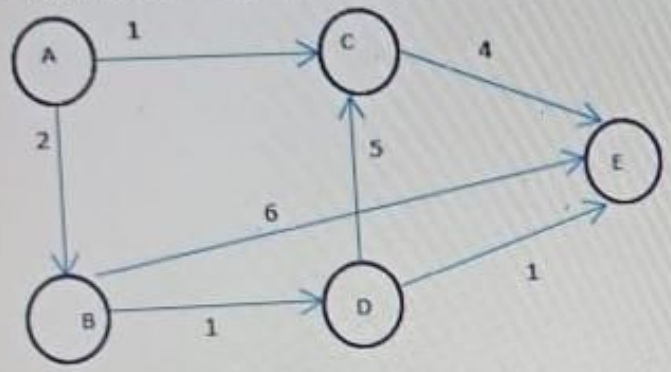
Question 24

Not yet answered

Marked out of 2.00 .

Flag question

Consider the below graph and apply the Dijkstra's algorithm to find the shortest path from the source vertex A to vertex E.



Select one:

a. 4

b. 8

c. 5

d. 7

e. 3

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MCQ SECTION

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Question 12

Not yet answered

Marked out of 2.00

Flag question

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

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

Select one:

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

Quiz na

MCQ SECTION

1 2 3

9 10 11

17 18 19

MCQ SECTION II

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ESSAY QUESTION

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FEEDBACK SECTION

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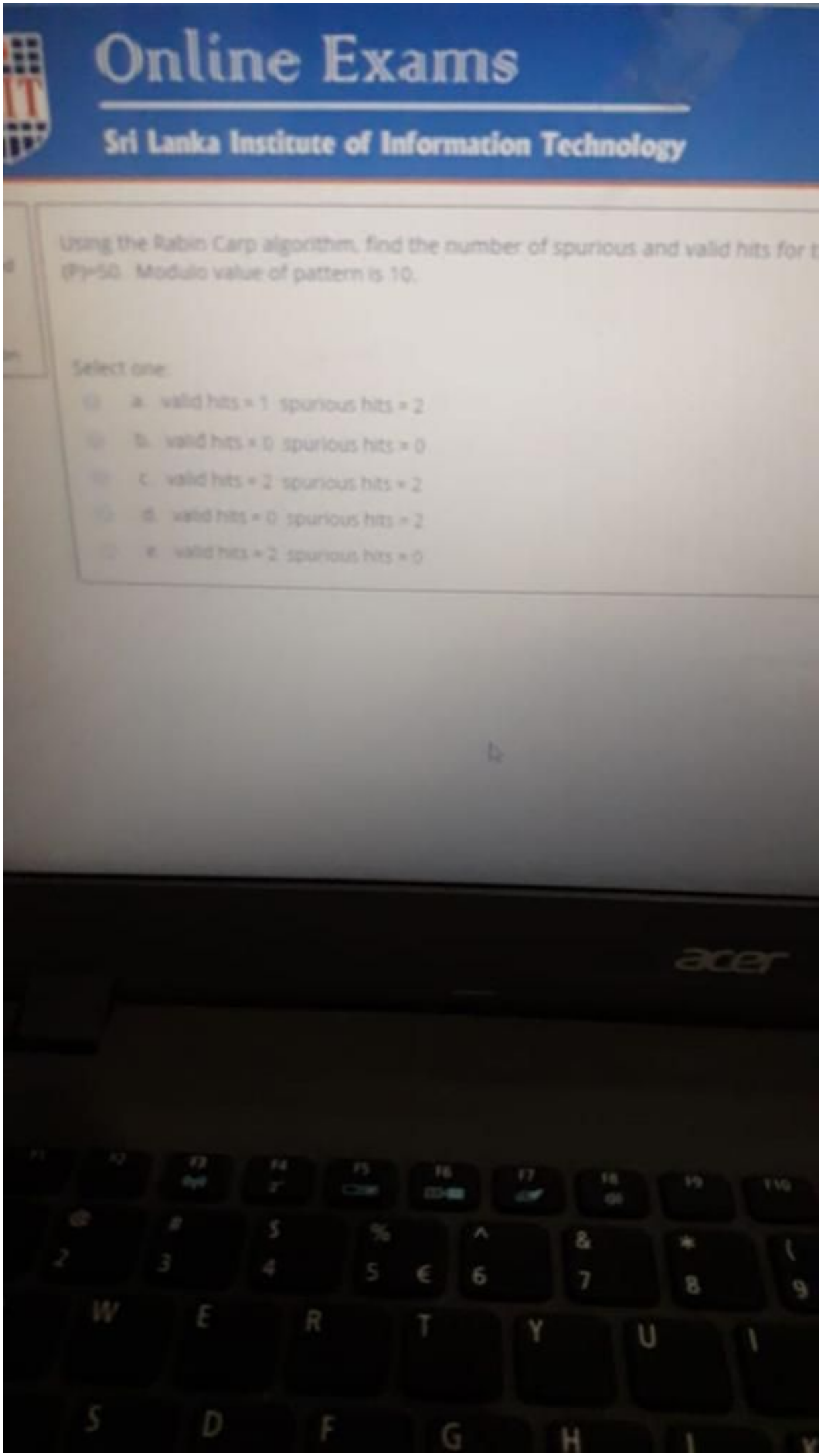
Find the step count of the following pseudo code using RAM model

```
sum =0

for i =1 to 5
   sum = sum + 10
   print sum

for j =1 to 5
   sum = sum + 10
   print sum
```

Answer: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Using the Rabin Carp algorithm, find the number of spurious and valid hits for t
(P)=50. Modulo value of pattern is 10.
Select one:
a. valid hits = 1 spurious hits = 2
b. valid hits = 0 spurious hits = 0
c. valid hits = 2 spurious hits = 2
d. valid hits = 0 spurious hits = 2
e. valid hits = 2 spurious hits = 0
acer

Sri Lanka Institute of Information Technology

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ed out of
lag question

Find the **incorrect** statement

Select one:

a. Divide and Conquer method is an Algorithm Designing Technique

b. Quick Sort worst case happens if the array is in ascending order

c. Kruskal's algorithm is a greedy algorithm

d. Divide and Conquer method is used in both Merge Sort and Quick Sort algorithms

e. Insertion Sort and Quick Sort best case Big-O Notations are same

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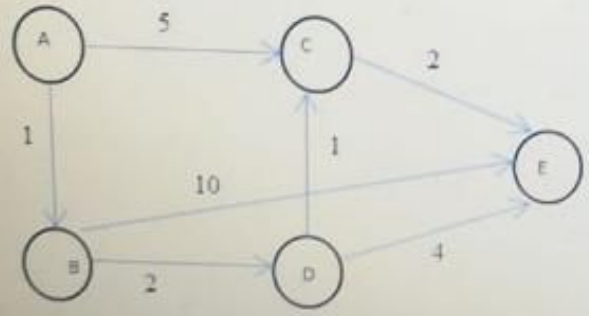
Question 24

Not yet answered

Marked out of 2.00

Flag question

Consider the below graph and apply the Dijkstra's algorithm to find the shortest path from the source vertex A to C and A to E



Select one:

a. 5 and 11

b. 4 and 6

c. 4 and 7

d. 5 and 7

e. 5 and 6

≡ Quiz navigation

MCQ SECTION I

1 2 3 4 5

8 9 10 11 12

15 16 17 18 19

22 23 24

MCQ SECTION II

25 26 27 28 29 30

32 33 34 35 36 37

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Find the no of steps of the following pseudo code using RAM model

```
i = 1
while ( i <= 10)
   print (i)
   i = i + 3
```

Answer:

Question 35

Not yet answered

Marked out of 3.00

Flag question

Consider the following max heap represented in an array

1	2	3	4	5	6	7
67	55	60	24	38	45	48

A new value is added to the heap as the last element (heap size will be incremented by one) without affecting the max heap property.

Which one of the following can be the new value?

Select one:

- a. 26
- b. 30
- c. 36
- d. 50
- e. 10

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Quiz nav

MCQ SECTION

1 2 3

8 9 10

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22 23 24

MCQ SECTION

25 26 27

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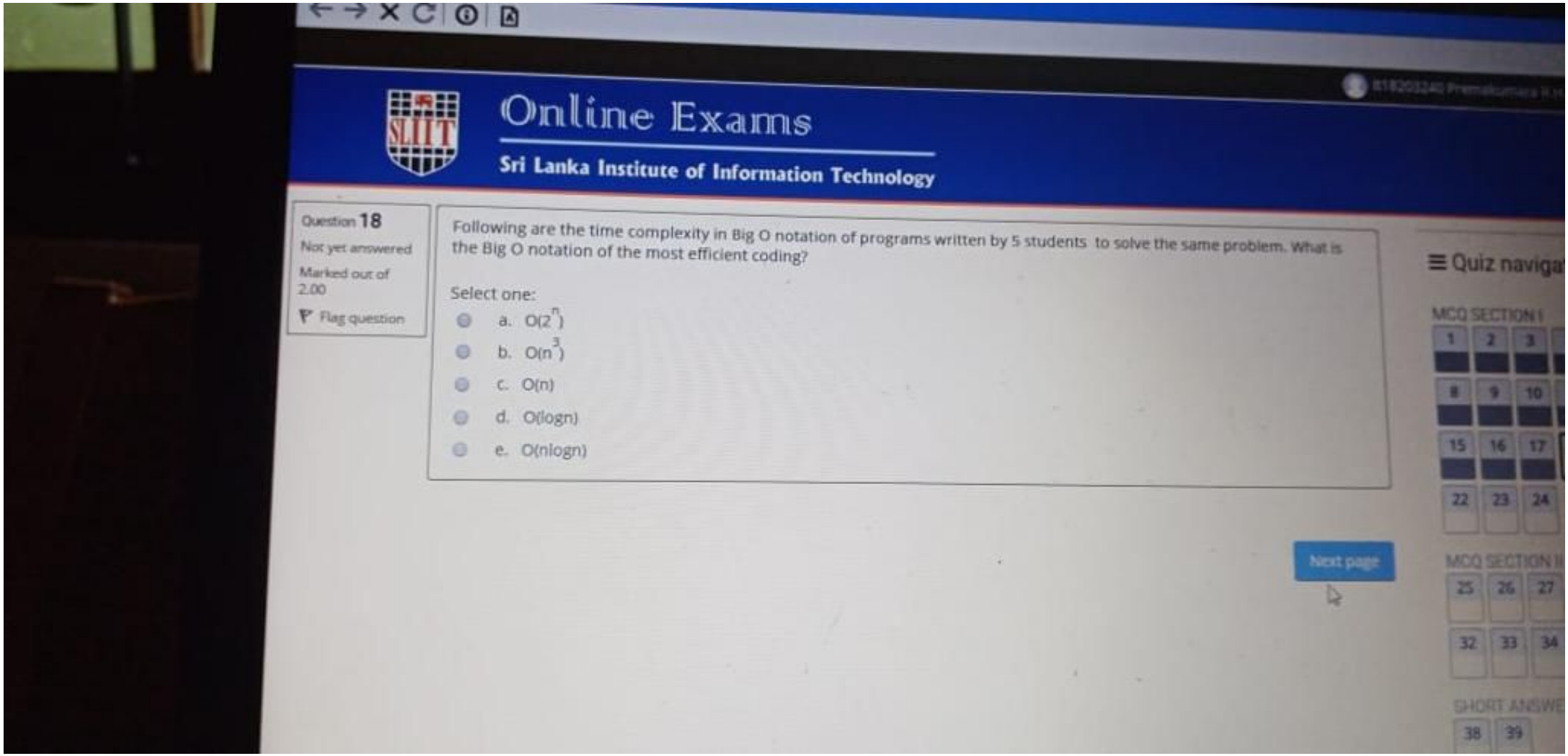
ESSAY QUEST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Sri Lanka Institute of Information Technology
Question 18
Not yet answered
Marked out of 2.00
Flag question
Following are the time complexity in Big O notation of programs written by 5 students to solve the same problem. What is the Big O notation of the most efficient coding?
Select one:
a. O(2^n)
b. O(n^3)
c. O(n)
d. O(logn)
e. O(nlogn)
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Quiz naviga
MCQ SECTION I
1 2 3
8 9 10
15 16 17
22 23 24
MCQ SECTION II
25 26 27
32 33 34
SHORT ANSWE
38 39

Question 36

Not yet answered

Marked out of 3.00

Flag question

Find the values of the below array after converting to a max heap

1	2	3	4	5	6	7	8
6	32	38	10	18	20	22	5

Select one:

a. 38 32 22 10 18 20 6 5

b. 38 32 20 10 18 6 22 5

c. 38 32 6 10 18 20 22 5

d. 32 18 38 10 6 20 22 5

e. 5 6 10 18 20 22 32 38

Question 22

Not yet answered

Marked out of 2.00

Flag question

Which of the following is false about Kruskal's algorithm?

Select one:

a. Edges are selected in increasing order of their weights

b. It is a greedy algorithm

c. It is used to find the Minimum Cost Spanning Tree

d. It accepts cycles when finding the Minimum Cost Spanning Tree

e. None of the mentioned

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Find the Big O value of the following function

$f(n) = 2^n + 7n^2 + n + 7$

Select one:

a. $O(n^2)$

b. $O(2^n)$

c. $O(2^n + n^2 + n)$

d. $O(1)$

e. $O(n)$

Consider the array 'A' given below. If the given partition i.e. after executing *PARTITION(A, 1, 8)*

1	2	3	4	5	6	7	8
55	11	20	90	80	40	30	68

```
PARTITION(A, p, r)
1   x = A[r]
2   i = p - 1
3   for j = p to r - 1
4       if A[j] ≤ x
5           i = i + 1
6           exchange A[i] with A[j]
7   exchange A[i + 1] with A[r]
8   return i + 1
```

Select one:

a. Index 7

b. Index 8

c. Index 6

d. Index 5

e. Index 4

Question 21
Not yet answered
Marked out of 2.00
Flag question

Consider the following statements regarding the algorithms

1. Insertion sorting algorithm performance is very good when the input size is small
2. When the algorithm is recursive then the running time equation also recursive
3. When an algorithm has more nested loop then the performance will be increased

Which of the above is/are correct ?

Select one:

a. All are correct
b. Only 2 and 3
c. Only 1
d. Only 1 and 2
e. Only 2

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Question 25

Not yet answered

Marked out of 3.00

Flag question

Insert the following values to a binary search tree and find the successor if node 88 is deleted.

68 , 88 , 90 , 70 , 32 , 38 , 69 , 89 , 92

Select one:

a. 89

b. 68

c. 92

d. 69

e. 90

Question 33

Not yet answered

Marked out of 3.00

Flag question

Consider the array 'A' given below. If the given partition algorithm is applied to the array 'A', where would be the value 68? i.e. after executing *PARTITION(A, 1, 8)*

1	2	3	4	5	6	7	8
55	11	20	90	80	40	30	68

PARTITION(*A, p, r*)

```
1  x = A[r]
2  i = p - 1
3  for j = p to r - 1
4      if A[j] ≤ x
5          i = i + 1
6          exchange A[i] with A[j]
7  exchange A[i + 1] with A[r]
8  return i + 1
```

Select one:

- a. index 6
- b. index 7
- c. index 8
- d. index 1
- e. index 4

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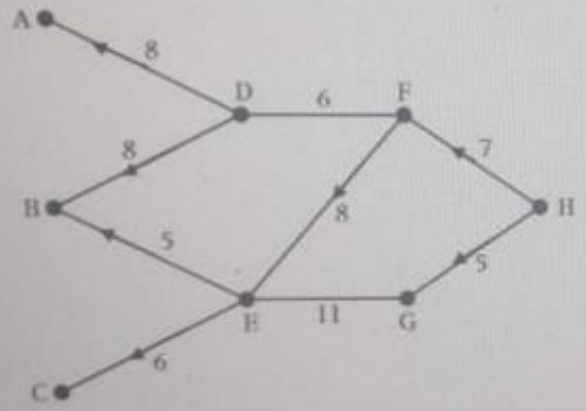
Question 24

Not yet answered

Marked out of 2.00

Flag question

Apply Dijkstra's algorithm and find out which of the vertices (A, B or C) nearest to H and the distance from H to that vertex?



Select one:

a. A, B and C , the distance is 21

b. C only, the distance is 22

c. A only, the distance is 14

d. A and B only, the distance is 21

e. B only, the distance is 20

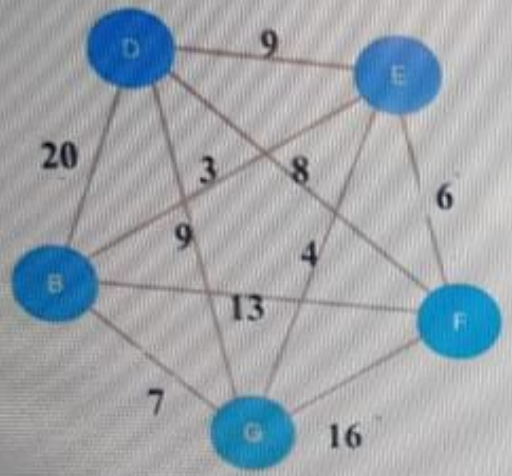
Question 23

Not yet answered

Marked out of 2.00

Flag question

Which of the following edges form Minimum Cost Spanning Tree using Kruskal's algorithm?



Select one:

a. (B - E), (E - G), (E - F), (F - D)

b. (B - E), (E - G), (E - F), (B - G), (D - F)

c. (D - B), (B - E), (E - G), (G - F)

d. (B - E), (E - G), (E - F), (B - G), (F - D)

e. (B - E), (E - G), (E - F), (E - D)

Moodle

Question 29

Not yet answered

Marked out of 3.00

Flag question

Consider the below link lists given in diagram A and diagram B. Find the code segment to convert diagram A to diagram B.

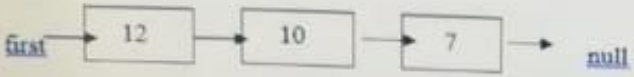


Diagram A

Diagram B

Select one:

a.

```
Link nLink = new Link(6);
first.next.next = nLink;
nLink.next = first.next.next;
```

b. First.next.next = newLink;

c.

```
Link nLink = new Link(6);
nLink.next = first.next.next;
first.next.next = nLink;
```

d.

```
first.next = newLink;
newLink.next = first.next;
```

Quiz navigation

MCQ SECTION I

1 2 3 4 5 6

8 9 10 11 12 13

15 16 17 18 19 20

22 23 24

MCQ SECTION II

25 26 27 28 29 30

32 33 34 35 36 37

SHORT ANSWER QUESTIONS

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ESSAY QUESTION

40

Question 20

Not yet answered

Marked out of 2.00

Flag question

Consider the below string matching algorithm where T - text and P - pattern. Find out the worst case complexity of this algorithm.

```
X (T, P)
1  n = T.length
2  m = P.length
3  for s = 0 to n-m
4      if P[1..m] = T[s+1..s+m]
5          print "Pattern occurs with shift" s
```

Select one:

a. O(1)

b. O((n-m+1)m)

c. O((n-m+1))

d. O(nm)

e. $O(n^2)$

Quiz navigati

MCQ SECTION I

1 2 3 4

8 9 10 11

15 16 17 18

22 23 24

MCQ SECTION II

25 26 27 28 29

32 33 34 35 36

Moodle

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Question 34

Not yet answered

Marked out of 3.00

Flag question

Consider the below Quick Sort algorithm with errors. Find the line with the error and the correction

QUICKSORT (A,p,r)

1 **If** p < r

2 q = **PARTITION**(A, p, r)

3 **QUICKSORT** (A, p, q)

4 **QUICKSORT** (A, q+1, r)

Select one:

- a. Line 1 should be corrected as if p > r
- b. Line 3 should be corrected as **QUICKSORT** (A, p-1, q)
- c. Line 3 should be corrected as **QUICKSORT** (A, p, q-1)
- d. Line 2 should be corrected as q = **PARTITION**(A, p, r-1)
- e. Line 4 should be corrected as **QUICKSORT** (A, q, r)

Next page

Quiz navigation

MCQ SECTION I

1 2 3 4 5 6 7 8

9 10 11 12 13 14 15 16

17 18 19 20 21 22 23 24

MCQ SECTION II

25 26 27 28 29 30 31 32

33 34 35 36 37

SHORT ANSWER QUESTIONS

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ESSAY QUESTION

40

FEEDBACK SECTION (OPTIONAL)

41

Not yet answered

Marked out of 3.00

Flag question

Following values are inserted to a binary search tree.

50 60 12 56 102 5

What is the result you get if you display all the values using the following method.

```
private void display(Node lRoot)
{
        if (lRoot != null)
        {
                lRoot.displayNode();
                display(lRoot.leftChild);
                display(lRoot.rightChild);
        }
}
```

Select one:

a. 102 60 56 50 12 5

b. 5 12 50 56 60 102

c. 50 12 5 60 56 102

d. 50 12 60 5 56 102

e. 5 12 56 102 60 50

≡ Quiz navigation

MCQ SECTION I

1 2 3 4 5 6

8 9 10 11 12 13

15 16 17 18 19 20

22 23 24

MCQ SECTION II

25 26 27 28 29 30

32 33 34 35 36 37

SHORT ANSWER QUESTIONS

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Which type of traversal of binary search tree outputs the value in sorted order?

Select one:

a. Pre order

b. In order

c. Post order

d. Reverse order

e. None of the mentioned

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Question 22

Not yet answered

Marked out of 2.00

Flag question

Consider the below statements about insertion sort algorithm

1. Exhibits the worst case when the array is arranged in reverse order
2. Worst case performance is $O(n^2)$
3. Similar to the way a card player arrange the cards from a card deck

Which of the following is correct?

Select one:

a. Only statement 2 is correct

b. Only statement 1 is correct

c. Only statement 3 is correct

d. All the statements are correct

e. Only statement 1 and 2 are correct

Quiz navigation

MCQ SECTION I

1 2 3 4 5 6 7

8 9 10 11 12 13 14

15 16 17 18 19 20 21

22 23 24

MCQ SECTION II

25 26 27 28 29 30 31

32 33 34 35 36 37

38 39

Moodle

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Question 1

Not yet answered

Marked out of 2.00

Flag question

No of elements in a linear queue is always given as,

Select one:

a. maxSize - 1

b. maxSize

c. rear – front + 1

d. rear – front

e. rear + 1

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Question 34

Not yet answered

Marked out of 3.00

Flag question

Consider the below Quick Sort algorithm with errors. Find the line with the error and the correction

```
QUICKSORT (A,p,r)
1 if p < r
2   q = PARTITION(A, p, r)
3   QUICKSORT (A, p, q)
4   QUICKSORT (A, q+1, r)
```

Select one:

a. Line 1 should be corrected as if p > r

b. Line 4 should be corrected as QUICKSORT (A, q, r)

c. Line 3 should be corrected as QUICKSORT (A, p, q-1)

d. Line 3 should be corrected as QUICKSORT (A, p-1, q)

e. Line 2 should be corrected as q = PARTITION(A, p, r-1)

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Question **33**

Not yet answered

Marked out of 3.00

Flag question

Consider the following max heap represented in an array

1	2	3	4	5	6	7
67	55	60	24	38	45	48

A new value is added to the heap as the last element (heap size will be incremented by one) without affecting the max heap property.

Which one of the following can be the new value?

Select one:

- a. 36
- b. 30
- c. 26
- d. 10
- e. 50

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Question 12

Not yet answered

Marked out of 2.00

Flag question

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

```
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. delete()

d. insert()

e. pop()

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Question **3**

Not yet answered

Marked out of 2.00

Flag question

Find the correct statement regarding "rear = maxsize -1"

Select one:

- a. It is used to find whether a linear queue is full
- b. It is used to find whether a circular queue is full
- c. It is used to find whether a linear queue is empty
- d. It is used to find whether a circular queue is empty
- e. Above a) and b) both are correct

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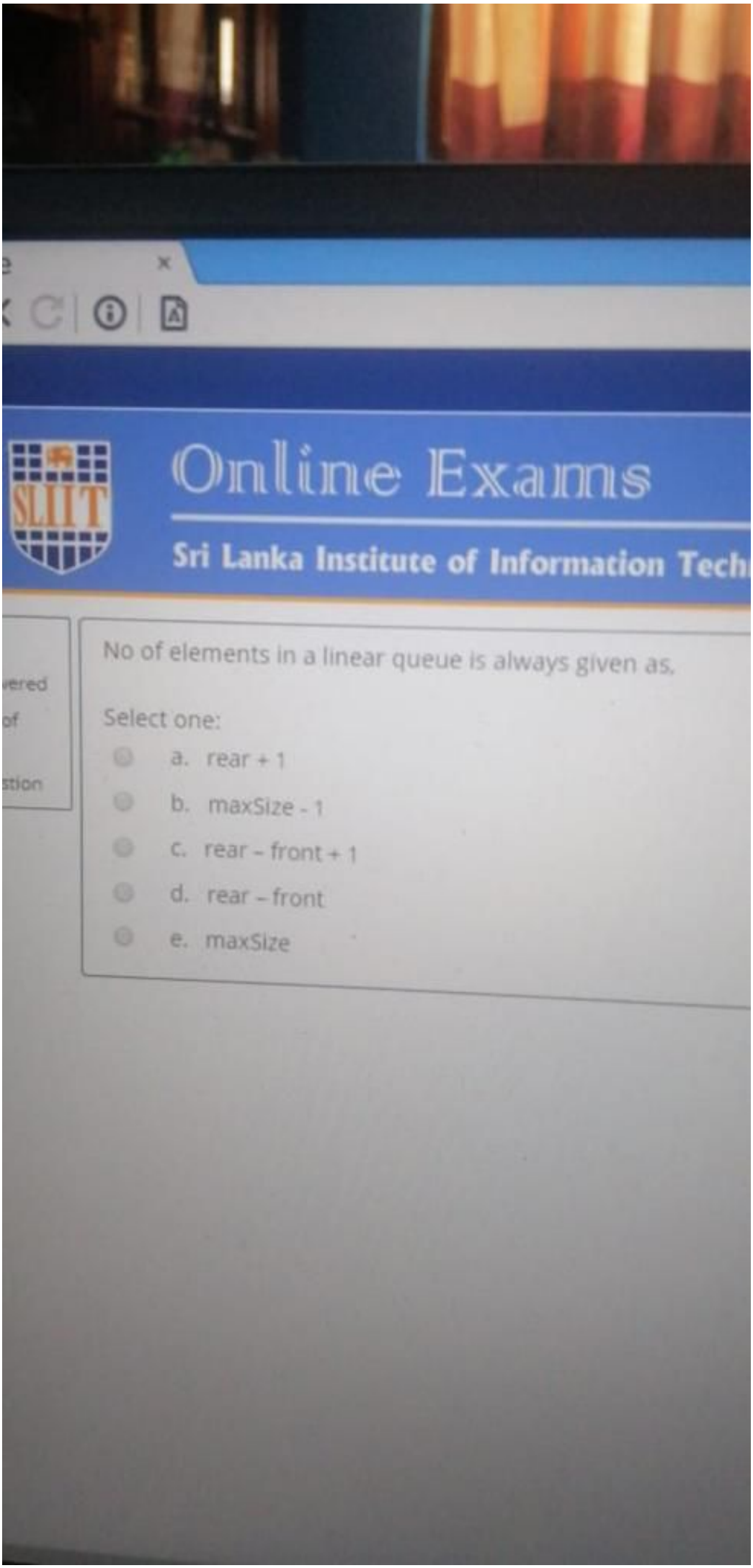
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No of elements in a linear queue is always given as.
Select one:
a. rear + 1
b. maxSize - 1
c. rear – front + 1
d. rear – front
e. maxSize

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question

A node of a binary search tree is referred as "current". It is given that current.leftChild == NULL and current.rightChild == NULL. current is a,

Select one:

a. Node with one left child

b. Node with one right child

c. Node with two children

d. Leaf node

e. None of the mentioned

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g question

A stack is filled with values. All the values are popped from the stack and inserted to an empty queue (size is same as the stack). All the numbers are again removed from the queue and pushed back to the stack. Which of the following statement is correct about the stack?

Select one:

a. Stack remains the same

b. Stack is reversed

c. Values cannot be popped from the stack

d. Stack is empty

e. None of the mentioned

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question

A node of a binary search tree is referred as "current". It is given that current.leftChild == NULL and current.rightChild == NULL. current is a,

Select one:

a. Node with one left child

b. Node with one right child

c. Node with two children

d. Leaf node

e. None of the mentioned

Question 21

Not yet answered

Marked out of 2.00

Flag question

Consider the below string matching algorithm where T – text and P – pattern. Find out the worst case complexity of this algorithm.

```
X (T, P)
1  n = T.length
2  m = P.length
3  for s = 0 to n-m
4      if P[1..m] = T[s+1..s+m]
5          print "Pattern occurs with shift" s
```

Select one:

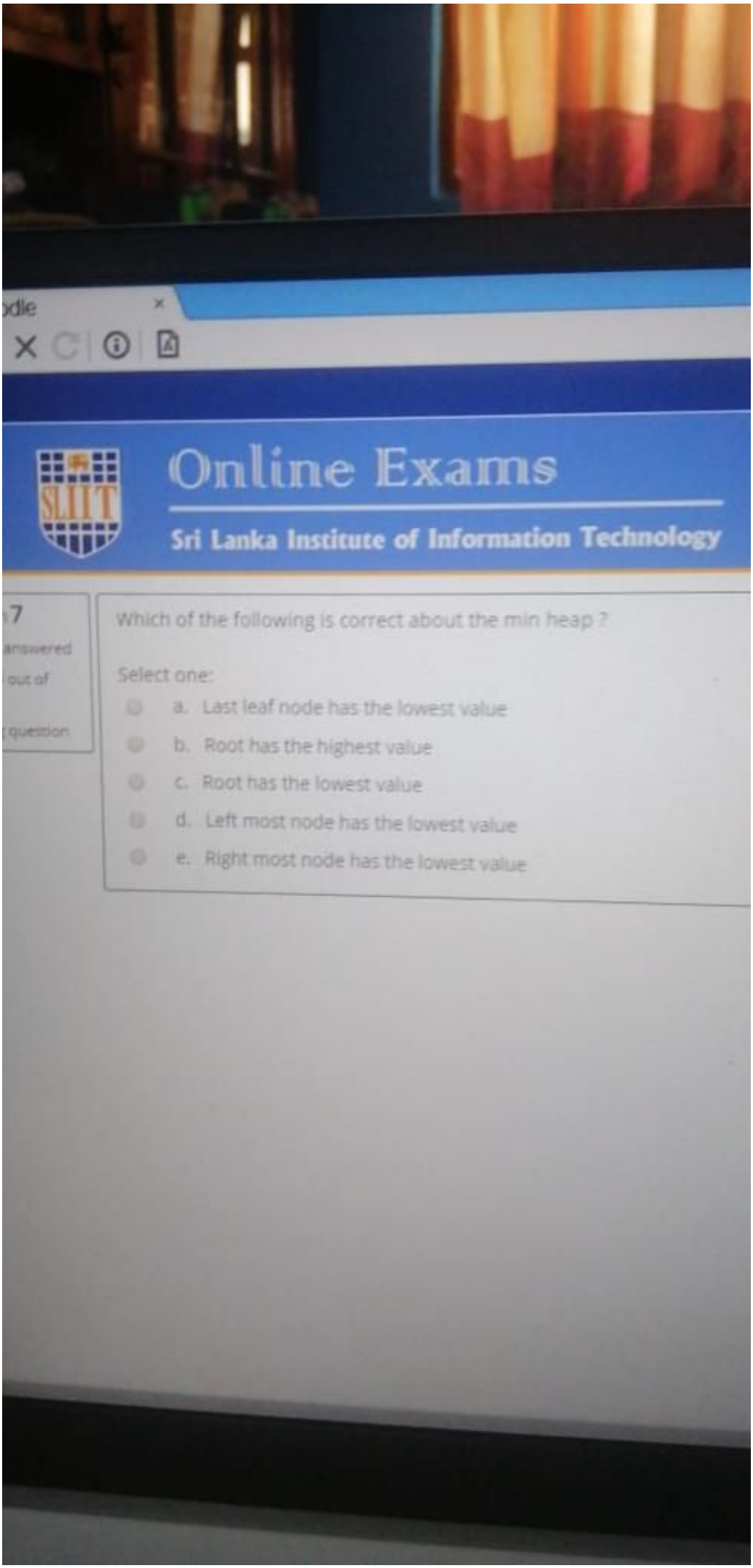
a. O((n-m+1)m)

b. O(nm)

c. $O(n^2)$

d. O((n-m+1))

e. O(1)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Which of the following is correct about the min heap ?
Select one:
a. Last leaf node has the lowest value
b. Root has the highest value
c. Root has the lowest value
d. Left most node has the lowest value
e. Right most node has the lowest value

Consider the below string matching algorithm where T - text and P - pattern. Find out the worst case complexity of this algorithm.

```
X (T, P)
1   n = T.length
2   m = P.length
3   for s = 0 to n-m
4       if P[1..m] = T[s+1..s+m]
5           print "Pattern occurs with shift" s
```

Select one:

- a. O(1)
- b. O(nm)
- c. O((n-m+1)m)
- d. $O(n^2)$
- e. O((n-m+1))

Which of the following analysis method is practically used to analyze an algorithm?

Select one:

a. Step count method

b. Asymptotic notation

c. RAM Model

d. Operation count method

e. Exact analysis

Question 27

Not yet answered

Marked out of 3.00

Flag question

What is correct about the below method of the link list class?

```
Link cur = first;
while( cur.next != null)
{
        cur = cur.next;
}
cur. displayLink();
```

Select one:

a. This method will display the first link in the link list

b. This method will display all the links in the link list

c. This method will not display anything

d. This method will display all the links except the last link

e. This method will display the last link in the link list

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Question 30

Not yet answered

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Flag question

Following values are inserted to a binary search tree.

50 60 12 56 102 5

What is the result you get if you display all the values using the following method.

```
private void display(Node lRoot)
{
        if (lRoot != null)
        {
                lRoot.displayNode();
                display(lRoot.leftChild);
                display(lRoot.rightChild);
        }
}
```

Select one:

a. 102 60 56 50 12 5

b. 5 12 50 56 60 102

c. 50 12 5 60 56 102

d. 50 12 60 5 56 102

e. 5 12 56 102 60 50

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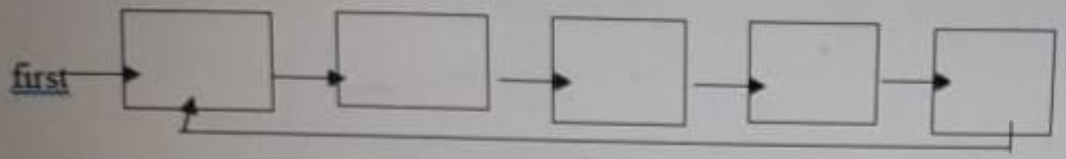
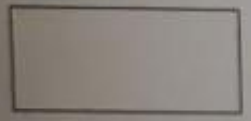
Given below is a circular link list. Following method has been written to display all the links. Fill in the blank with the correct condition.




```
Link cur = first;
if (cur == NULL)
    return;
```



Select one:

a.
```
while (cur != first){
    cur.displayLink();
    cur = cur.next;
}
```

b.
```
while (cur.next != first){
    cur.displayLink();
}
cur.displayLink();
```

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Which type of traversal of binary search tree outputs the value in sorted order?

Select one:

a. Pre order

b. In order

c. Post order

d. Reverse order

e. None of the mentioned

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Find the **incorrect** statement

Select one:

a. Divide and Conquer method is used in both Merge Sort and Quick Sort algorithms

b. Quick Sort worst case happens if the array is in ascending order

c. Kruskal's algorithm is a greedy algorithm

d. Insertion Sort and Quick Sort best case Big-O Notations are same

e. Divide and Conquer method is an Algorithm Designing Technique

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Question 25

Not yet answered

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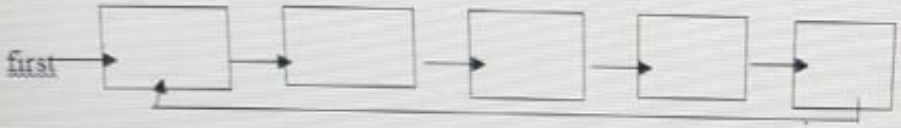
Given below is a circular link list. Following method has been written to display all the links. Fill in the blank with the correct condition.




```
Link cur = first;
if (cur == NULL)
    return;
```

[ ]

Select one:

a.
```
while (cur.next != first){
    cur.displayLink();
    cur = cur.next;
}
cur.displayLink();
```

b.
```
while (cur != first){
    cur.displayLink();
    cur = cur.next;
}
```

c.
```
while (cur.next != first){
```

Quiz nav

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MCQ SECTION II

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Flag question

In a given link list, "first.next = null" . Which one of the following statement is correct?

Select one:

a. Link list is empty

b. Link list has only one link

c. This is a circular link list

d. Link list has two links

e. None of the mentioned

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Question 18

Not yet answered

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Flag question

Consider the text and the pattern given below. You need to find the given pattern in the text using Naive-String-Matcher algorithm.

Text - CABDAAACABB

Pattern - CAB

Pattern can be found when

Select one:

a. shift = 0 and shift = 7

b. shift = 1 only

c. shift = 1 and shift = 5

d. shift = 0 only

e. shift = 7 only

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Flag question

Which of the following statement about stack is NOT correct?

Select one:

a. "top" becomes -1 when a stack is empty

b. Reversing a string is an inherent application of stack

c. Stacks follow "FIFO"

d. New elements are always inserted at the "top"

e. Linked Lists can be used to implement Stacks

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MCQ

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g question

No of elements in a linear queue is always given as,

Select one:

a. rear - front

b. rear + 1

c. maxSize

d. rear - front + 1

e. maxSize - 1

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Question 20

Not yet answered

Marked out of 2.00

Flag question

Following are the time complexity of 5 algorithms in Big O notation. Find the correct order when they are arranged from the most efficient algorithm to the least efficient algorithm.

$O(N^2)$ $O(\log N)$ $O(N \log N)$ $O(N)$ $O(N^3)$

Select one:

a. $O(\log N)$ $O(N \log N)$ $O(N)$ $O(N^2)$ $O(N^3)$

b. $O(N \log N)$ $O(\log N)$ $O(N)$ $O(N^2)$ $O(N^3)$

c. $O(N)$ $O(\log N)$ $O(N \log N)$ $O(N^2)$ $O(N^3)$

d. $O(\log N)$ $O(N)$ $O(N \log N)$ $O(N^2)$ $O(N^3)$

e. $O(N \log N)$ $O(N)$ $O(\log N)$ $O(N^2)$ $O(N^3)$

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ESSAY QUESTION

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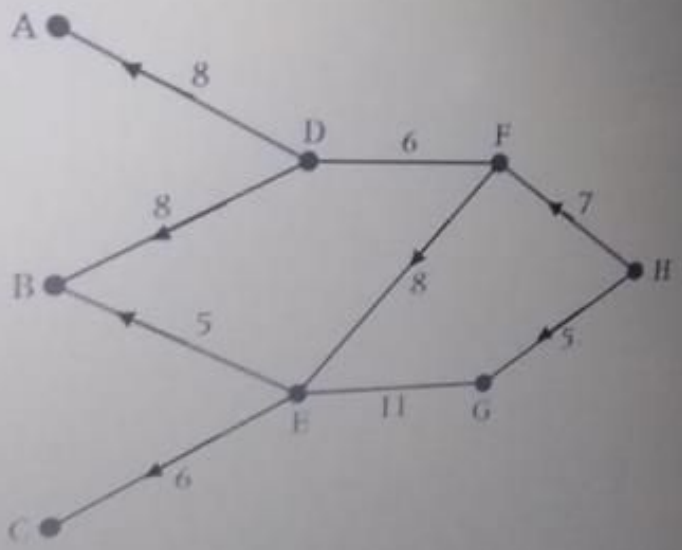
Apply Dijkstra's algorithm and find out which of the vertices (A, B or C) nearest to H and the distance from H to that vertex?



Quiz navigation

Select one:

a. A, B and C ; the distance is 21

b. A and B only; the distance is 21

c. C only; the distance is 22

d. B only; the distance is 20

e. A only; the distance is 14

Moodle

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Question 7

Not yet answered

Marked out of 2.00

Flag question

Which of the following statement about stack is NOT correct?

Select one:

a. "top" becomes -1 when a stack is empty

b. New elements are always inserted at the "top"

c. Reversing a string is an inherent application of stack

d. Stacks follow "FIFO"

e. Linked Lists can be used to implement Stacks

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Which of the following analysis method is practically used to analyze an algorithm?

Select one:

a. Step count method

b. Exact analysis

c. RAM Model

d. Operation count method

e. Asymptotic notation

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Same timing complexities for both best case and worst case can be found in

Select one:

- a. insertion sort
- b. merge sort
- c. bubble sort
- d. none of the mentioned
- e. quick sort