f. None

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of 1.50

estion

The Dequeue operation in the linked queue will ..... from the queue

Select one:

a. remove

b. return

c. delete

d. a+c

Consider a linked list represented by the following diagram:

A ==>F ==> D ==> B ==>C ==>NULL

What will be the linklist after the following lines of code have been exec

```
Node *p = head->link;
Node *n = new Node;
n->data = G;
n->link= p->link;
p->link= n;
p = p->link;
p = p->link;
p->link->data=K;
```

Select one:

- a. A ==>F ==> D ==> B ==>K ==>NULL
- b. A ==>F ==>G ==> D ==> K ==>C ==>NULL
- c. A ==>F ==>G ==> D ==> B ==>K ==>NULL
- d. None
- e. A ==>F ==>G ==> K ==> B ==>C ==>NULL

Linked stack data structure provides a good saving in

Select one:

- a. None
- b. Time complexity
- c. Space complexity
- d. Time complexity and Space complexity

4-DATA STRUCTURES & ALGORITHMS LAB.-1

Question 15

Not yet answered

Marked out of 2.50

Flag question

What is the output of the following code?

next pointer is the same as link pointer in the manual

Assume the linklist as follows

10 -> 16 -> 7 -> 2

```
node *c, *i,*s;
int item = head->data;
c = head->next;
while (c->next != NULL)
{
      i = c;
      c = c->next;
}
c->next=head;
s=c->next;
i->next->data=57;
cout<<c->data<<"    ";
cout<<head->next->data<<"    ";
cout<<s->data;
```

Select one:

- a. 57 10 7
- b. 57 16 57
- c. 57 6 4
- d. 57 16 10

Where is the error?

```
1  template <class T>
2  T Fun1 (T x, T y)
3  {
4      return (x>y?x:y);
5  }
6
7  void main()
8  {
9      cout<<Fun1(int)(5,9);
10     cout<<Fun1(char)('d','e');
11 }
12
13
```

Select one:

- a. Line 4
- b. Line 2
- c. Line 9
- d. Line 10
- e. c and d
- f. None

The Dequeue operation in the linked queue will ..... from the que

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424-DATA STRUCTURES & ALGORITHMS LAB.-1

8

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Question 8

Not yet answered

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Flag question

What is the output of the following code?

the function top() will return the value of the array at the index tos

```
stack <int> s;
int n1, n2, n3;
s.push(20);
s.push(150);
s.push(32);
n1 = s.pop( );
n2 = s.top( );
s.push(19);
n3 = s.pop( );
n1 = s.top( );
cout<<n1<<"   " <<n2<< "   "<<n3;
```

Select one:

- a. 150 19 32
- b. None
- c. 19 32 19
- d. 150 32 19

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Linked stack data structure provides a good saving in

Select one:

- a. None
- b. Time complexity
- c. Space complexity
- d. Time complexity and Space complexity

4

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question

In **Static Queue** data structure

if we initialize the rear with **zero** rather than -1

then enqueueing the item in the queue will hold the following instructions:

Select one:

- a. rear++;
  arr[rear]=item;
- b. arr[++rear]=item;
- c. None
- d. arr[rear]=item;
  rear++;

tion 5

Linked stack data structure provides a good saving in

What is the output of the following code?

```
staticqueue q;
int z = 10;
int a [] = {1, 3, 5, 7, 9, 7};
 q.enqueue( a[0] );
 q.enqueue( a[1] );
 q.enqueue( a[2] );
 for ( i = 0; i < 3; i++)
    z += q.dequeue( );
 cout<<n;
```

Select one:

- a. 10
- b. 18
- c. None
- d. 14
- e. 19

If we use a **tail** pointer that points to the end of a singly linked list, then which of the following will be executed in O(1) time?

Select one

- a. Inserting a node at the beginning of the link list
- b. Inserting a node at the middle of the link list
- c. deleting a node from the middle of the link list
- d. deleting a node from the end of the link list
- e. a+d
- f. None

Next page

uestion 8

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Marked out of 1.50

Flag question

Assume you have the following **ordered link list:**

head -> C -> B -> D -> E -> F -> G ->NULL

The following code is applied on this list as follows:

```
node<T> *q;
q=head;
while(q->link!=NULL)
      q=q->link;
q->link=head;
q->link->data='A';
```

Choose the correct answer

Select one:

- a. the data of the last node will be changed to A
- b. None
- c. the data of the head node will be changed to A
- d. the last node will be deleted

Consider a linked list represented by the following diagr

A ==>F ==> D ==> B ==>C ==>NULL

What will be the linklist after the following lines of code h

```
Node *p = head->link;
Node *n = new Node;
n->data = G;
n->link= p->link;
p->link= n;
p = p->link;
p = p->link;
p->link->data=K;
```

Select one

- a. A ==>F ==> D ==> B ==>K ==>NULL
- b. A ==>F ==>G ==> D ==> K ==>C ==>NULL
- c. A ==>F ==>G ==> D ==> B ==>K ==>NULL
- d. None
- e. A ==>F ==>G ==> K ==> B ==>C ==>NULL

What is the output of the following code?

```
staticqueue q;
int z = 10;
int a [] = {1, 3, 5, 7, 9, 7};
 q.enqueue( a[0] );
 q.enqueue( a[1] );
 q.enqueue( a[2] );
 for ( i = 0; i < 3; i++)
    z += q.dequeue( );
 cout<<n;
```

Select one:

- a. 10
- b. 18
- c. None
- d. 14
- e. 19

Where is the error?

```
1  template <class T>
2  T Fun1 (T x, T y)
3  {
4      return (x>y?x:y);
5  }
6
7  void main()
8  {
9      cout<<Fun1(int)(5,9);
10     cout<<Fun1(char)('d','e');
11 }
12
13
```

Select one:

- a. Line 4
- b. Line 2
- c. Line 9
- d. Line 10
- e. c and d
- f. None

The Dequeue operation in the linked queue will ..... from the que

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question

In **Static Queue** data structure

if we initialize the rear with **zero** rather than -1

then enqueueing the item in the queue will hold the following instructions:

Select one:

- a. rear++;
  arr[rear]=item;
- b. arr[++rear]=item;
- c. None
- d. arr[rear]=item;
  rear++;

tion 5

Linked stack data structure provides a good saving in

STRUCTURES & ALGORITHMS LAB.-1

Write a method (only the method not all the class) for finding the sum of all even numbers in a linked list?

Teams_Midterm Solution_Recording

s · 1 like · 0 comments

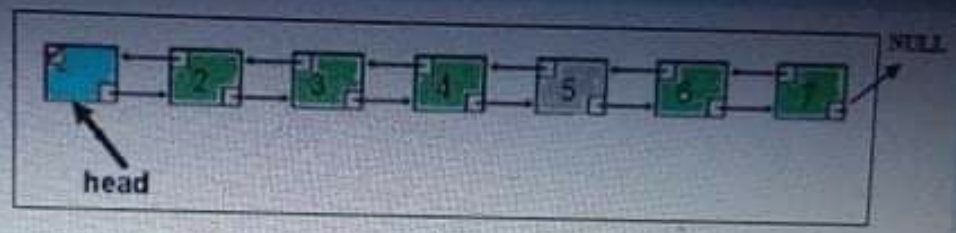
Question 10

Correct

Mark 1.50 out of 1.50

Edit question

Assume we have the following doubly LinkedList



Trace the following code on this list and choose the output from the following

```
void function1( )
{
 node <T>*c,*p;
 p=head->next->next;
c = p;
c->prev->data = 32;
 p =c->next->next;
p->prev->data= 17;
}
```

Question 18

Correct

Mark 1.50 out of 1.50

Edit question

Consider the linked list of integers represented by the following diagram:

head==>5 ==>3 ==> 7 ==> 12 ==>10 ==>NULL

What is the linklist after the following lines of code have been executed:

```
Node *p = head->link;
Node *n = new Node;
n->data = 4;
n->link= p->link;
p->link= n;
p = p->link;
p = p->link;
p->link->data=24;
```

Select one:

a. 5 ==>3 ==> 7 ==> 12 ==>24 ==>NULL

b. 5 ==>3 ==>4 ==> 7 ==> 24 ==>10 ==>NULL

c. 5 ==>3 ==>4 ==> 7 ==> 12 ==>24 ==>NULL ✓

comments

3 8/12/20, 13:57 Attempt finished

Question 17

Correct

Mark 1.50 out of 1.50

Edit question

Suppose p refers to a node in a linked list.

What statement changes p so that it refers to the next node?

Select one:

a. p=p->next;

b. p=next;

c. p->next==NULL;

d. None

e. p+=1;

Your answer is correct.

The correct answer is: p=p->next;

Solution_Recording

ke · 0 comments

Question 19

Correct

Mark 1.50 out of 1.50

Edit question

An item can be inserted into _____, without moving any other items

Select one:

a. Linklist ✓

b. array

c. a and b

d. None

Your answer is correct.

The correct answer is: Linklist.

Make comment or override mark

f. None

ered

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estion

The Dequeue operation in the linked queue will ..... from the queue

Select one:

- a. remove
- b. return
- c. delete
- d. a+c

Question 13

Correct

Mark 1.50 out of 1.50

Edit question

```
Linkedqueue <int> q1;
for(int i=0;i<size;i++)
    cout << q1.dequeue();
```

Select one:

- a. add the elements into the queue
- b. print and remove the elements from the queue ✓
- c. print the elements from the queue without removing them
- d. remove the elements from the queue
- e. None

Your answer is correct.

... and remove the elements from the queue

Question 13

Correct

Mark 1.50 out of 1.50

Edit question

```
Linkedqueue <int> q1;
for(int i=0;i<size;i++)
    cout << q1.dequeue();
```

Select one:

- a. add the elements into the queue
- b. print and remove the elements from the queue ✓
- c. print the elements from the queue without removing them
- d. remove the elements from the queue
- e. None

Your answer is correct.

... and remove the elements from the queue

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overrides

- User overrides
- Edit quiz
- Preview
- Results
- Locally assigned roles
- Permissions
- Check permissions
- Filters
- Logs
- Backup
- Restore
- Question bank

Question 3

Incorrect

Mark 0.00 out of 1.50

Flagged

Edit question

What does the following function do?

```
bool F1()
{
if (front == size-1)
return true;
else
return false;
}
```

S_Teams_Midterm Solution_Recording

2 views · 1 like · 0 comments

overrides

- User overrides
- Edit quiz
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- Results
- Locally assigned roles
- Permissions
- Check permissions
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- Restore
- Question bank

Question 3

Incorrect

Mark 0.00 out of 1.50

Flagged

Edit question

What does the following function do?

```
bool F1()
{
if (front == size-1)
return true;
else
return false;
}
```

3	8/12/20, 13:57	Attempt finished	Correct	1.50

Question 20

Correct

Mark 1.50 out of 1.50

Edit question

The data structures you will use if you want to go to the first node from the last and vice versa (و بالعكس)

Select one:

- a. Singly Linked List
- b. Queue
- c. Circular doubly linked list ✓
- d. None

Your answer is correct.

The correct answer is: Circular doubly linked list

Question 15

Correct

Mark 1.50 out of 1.50

Edit question

Assume that you have an empty circular queue **Q (array-based implementation)** with size **4**.

rear initially equals 0

front initially equals 0

The following operations have been performed:

```
Q.enqueue("a"); ==> Q.enqueue("b"); ==> Q.enqueue("c"); ==> Q.enqueue("d"); ==> Q.dequeue();
Q.dequeue(); ==> Q.dequeue(); ==> Q.enqueue("a"); ==> Q.enqueue("b"); ==> Q.enqueue("c");
Q.dequeue(); ==> Q.enqueue("d"); ==> Q.dequeue();
```

what is the value of the **front** index and **rear** index?

Select one:

- a. Front = 1 and rear = 0 ✓
- b. None
- c. Front = 3 and rear = 3
- d. Front = 3 and rear = 0

Question 15

Correct

Mark 1.50 out of 1.50

Edit question

Assume that you have an empty circular queue **Q (array-based implementation)** with size **4**.

rear initially equals 0

front initially equals 0

The following operations have been performed:

```
Q.enqueue("a"); ==> Q.enqueue("b"); ==> Q.enqueue("c"); ==> Q.enqueue("d"); ==> Q.dequeue();
Q.dequeue(); ==> Q.dequeue(); ==> Q.enqueue("a"); ==> Q.enqueue("b"); ==> Q.enqueue("c");
Q.dequeue(); ==> Q.enqueue("d"); ==> Q.dequeue();
```

what is the value of the **front** index and **rear** index?

Select one:

- a. Front = 1 and rear = 0 ✓
- b. None
- c. Front = 3 and rear = 3
- d. Front = 3 and rear = 0

22 views · 1 like · 0 comments

[11 October - 24 October]
25 October - 31 October
1 November - 7 November
8 November - 14 November
15 November - 21 November

Question 2

Correct

Mark 1.50 out of 1.50

Edit question

What is the output of the following code?

```
Static_linearqueue q;
int a [] = {1, 3, 5, 7, 9, 11, 13, 15, 17, 19};
for (int i = 0; i < 4; i++)
    q.enqueue( a[i] );
int n = 25;
for ( i = 0; i < 3; i++)
    n += q.dequeue( );
cout<<n;
```

Type here to search

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Teams_Midterm Solution_Recording

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Question 7

Correct

Mark 1.50 out of 1.50

Edit question

Choose the best data structures for the following application

A program needs to remember operations that are performed in the opposite order

Select one:

a. Stack ✓

b. Queue

c. a and b

d. None

Your answer is correct.

The correct answer is: Stack

Question 7

Correct

Mark 1.50 out of 1.50

Edit question

Choose the best data structures for the following application

A program needs to remember operations that are performed in the opposite order

Select one:

- a. Stack ✓
- b. Queue
- c. a and b
- d. None

```
return false;
}
```

Select one:

- a. Check if the queue is full
- b. Check if the stack is empty
- c. Check if the queue is empty after a number of dequeueing operations equal to the size of the queue
- d. None ✗
- e. Check if the queue is empty

Your answer is incorrect.

The correct answer is: Check if the queue is empty after a number

3 8/12/20, 13:57 Attempt finished Correct

what is the output of the following code, assume we have a **static sta**
size 5?

```
int main()
{
staticstack <int> s1;
s1.push(5);
s1.push(8);
cout<<s1.isempty( );
cout<<s1.pop( );
s1.push(3);
cout<<s1.pop( );
```

Question 6

Correct

Mark 1.50 out of 1.50

Edit question

The postfix of the following infix is .....?

```
z+(q*c(w/e^f)/m)+h
```

Notice that the operator ^ has the highest priority

Select one:

a. z q c w e ^ f ^ * m / + h +

b. z q c w e f ^ * / m / + h +

c. None

d. z q c w e f ^ / * m / + h + ✓

0 out of

question

```
int main()
{
staticstack <int> s1;
s1.push(5);
s1.push(8);
cout<<s1.isempty( );
cout<<s1.pop( );
s1.push(3);
cout<<s1.pop( );
cout<<s1.pop( );
cout<<s1.pop( );
cout<<s1.isfull( );
s1.push(10);
return 0;
}
```

Select one:

a. false 8 3 5 empty false

Question 3

Incorrect

Mark 0.00 out of 1.50

Flagged

Edit question

What does the following function do?

```
bool F1()
{
if (front == size-1)
return true;
else
return false;
}
```

Select one:

a. Check if the queue is full

Not secure | s2.ebalqa.courses/nfetmoodle/mod/quiz/review.php?attempt=50792

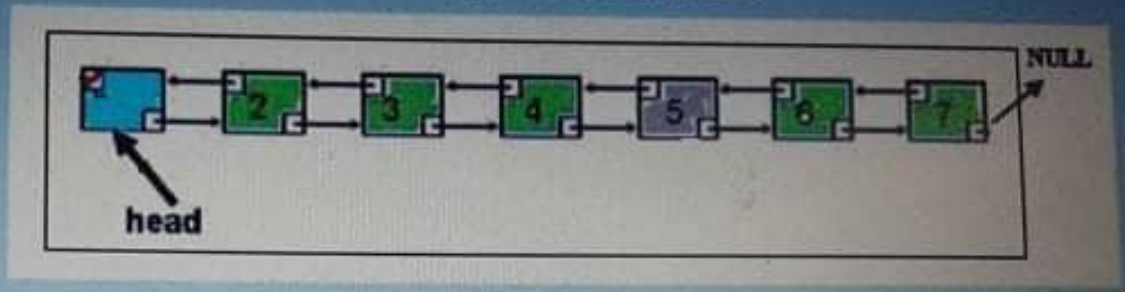
Question 10

Correct

Mark 1.50 out of 1.50

Edit question

Assume we have the following doubly LinkedList



Trace the following code on this list and choose the output from the following

```
void function1( )
{
 node <T>*c,*p;
 p=head->next->next;
c = p;
c->prev->data = 32;
 p =c->next->next;
p>prev->data= 17;
}
```

Mark 1.50 out of 1.50

Edit question

```
int main()
{
staticstack int s1;
s1.push(5);
s1.push(8);
cout<<s1.isempty( );
cout<<s1.pop( );
s1.push(3);
cout<<s1.pop( );
cout<<s1.pop( );
cout<<s1.pop( );
cout<<s1.isfull( );
s1.push(10);
return 0;
}
```

Select one:

a. false 8 3 5 empty false ✓

b. None

c. false 3 8 5 empty false

stion 16

rrect

k 0.00 out of

Edit question

*

Find the values of Front and Rear in a static linear queue with size = 8 after executing the following code

```
void main()
{
    Queue <int> q;
    q.Enqueue(0);
    q.Enqueue(1);
    for (int i = 0; i < 2; i++)
    {
        int a = q.Dequeue();
        int b = q.Dequeue();
        q.Enqueue(b);
        q.Enqueue(a + b);
    }
}
```

Front = 1 ✕

Rear = 3 ✕

1:37 56% 312 B/s UMNIAH

The following method will find the sum of all integer values stored in a **doubly link list**, then it will

insert a new node of the sum at the end of the link list.

Please fill the spaces.

```
void <T> fun1 ()
{
node<T>*d,*p,*n;
int sum=0;
d = Choose... ;
while (d!=NULL)
{
sum= Choose... ;
Choose... ;
p=d;
```

Structures Midterm Exam - Google Chrome

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Network connection lost. (Autosave failed).

Make a note of any responses entered on this page in the last few minutes, then try to re-connect.

Once connection has been re-established, your responses should be saved and this message will disappear.

```
staticstack int s1;
s1.push(6);
s1.push(7);
cout<<s1.isempty( );
cout<<s1.pop( );
s1.push(2);
cout<<s1.pop( );
cout<<s1.pop( );
cout<<s1.pop( );
cout<<s1.isfull( );
s1.push(12);
return 0;
}
```

Select one:

- a. false 7 2 6 empty false
- b. false 7 6 2 false false

b. None

c. 2 -> 15 -> 37 -> 5-> 6-> 7

d. 15 -> 3 -> 4 -> 37-> 6-> 7

Question 11

Not yet answered

Marked out of 1.50

Flag question

Which of the following is not a type of Linked List?

Select one:

a. Hybrid Linked List

b. Circular Linked List

c. Singly Linked List

d. Doubly Linked List

Question 12

Not yet answered

Marked out of 1.50

Flag question

The circular linked list is generally considered as an example of _____ type of memory allocation

Select one:

a. Static

b. Dynamic

c. None

d. Compile Time

-1-30102325-DATA STRUCTURES-1

5 6 7
12 13 14
19 20

Question **13**

Not yet answered

Marked out of 1.50

Flag question

```
Linkedqueue <int> q1;
for(int i=0;i<size;i++)
    cout << q1.dequeue();
```

Select one:

- a. remove the elements from the queue
- b. print the elements from the queue without removing them
- c. print and remove the elements from the queue
- d. None
- e. add the elements into the queue

25-DATA STRUCTURES-1

Question 19

Not yet answered

Marked out of 1.50

Flag question

An item can be inserted into _____, without moving any other items

Select one:

- a. Linklist
- b. array
- c. a and b
- d. None

Question 20

c. DCBA

d. DCAB

e. None

Question 15

Not yet answered

Marked out of 1.50

Flag question

Assume that you have an empty circular queue **Q (array-based implementation)** with size **4**

rear initially equals 0

front initially equals 0

The following operations have been performed:

```
Q.enqueue("a"); ==> Q.enqueue("b"); ==> Q.enqueue("c"); ==> Q.enqueue("d"); ==> Q.dequeue();
Q.dequeue(); ==> Q.dequeue(); ==> Q.enqueue("a"); ==> Q.enqueue("b"); ==> Q.enqueue("c");
Q.dequeue(); ==> Q.enqueue("d"); ==> Q.dequeue();
```

what is the value of the **front** index and **rear** index?

Select one:

a. Front = 3 and rear = 0

b. Front = 3 and rear = 3

c. None

d. Front = 1 and rear = 0

-DATA STRUCTURES-1

Question 7

Not yet answered

Marked out of 1.50

Flag question

Choose the best data structures for the following application

A program needs to remember operations that are performed in the opposite order

Select one:

- a. Stack
- b. Queue
- c. a and b
- d. None

Question 8

STRUCTURES-1

You are

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estion

Assume that you have a **doubly link list.**

Pointer **x** is pointing to the **last node** in the link list and pointer **y** is pointing to **before the last node.**

which of the following will remove the node pointed by **x** from the list?

Select one:

- a. delete x;
- b. y->prev->next = y->next;
  x->prev= y->prev;
  delete x;
- c. x->prev->next = x->next;
  y->prev= x->prev;
  delete x;
- d. x->next = y;
  y->prev = x->prev;
  delete x;

Suppose you insert the values 40, 20, 70, 50, and 5 into a binary search tree, and then trace the following

ered

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tion

The following method will find the **product** of all integer values stored in a **doubly link list**, th

insert a new node of this product at the end of the link list.

Please fill the spaces.

```
void <T> fun1 ()
{
node<T>*d,*p,*n;
int product= 1;
d = head ;
while (d != NULL)
{
product = product++ ;
p = p-> next ;
p=d;
}
n=new node<T>;
n -> data = product ;
p -> next = n ;
n->next=NULL;
}
```

STRUCTURES 2

The **minimum** element in the Binary Search Tree (BST) is located at ?.....

اختر أحد الخيارات

a. The rightmost node of the tree

b. the leftmost node Of the tree

c. the root of the tree

d. The leftmost node of the left subtree for the root

e. b+d

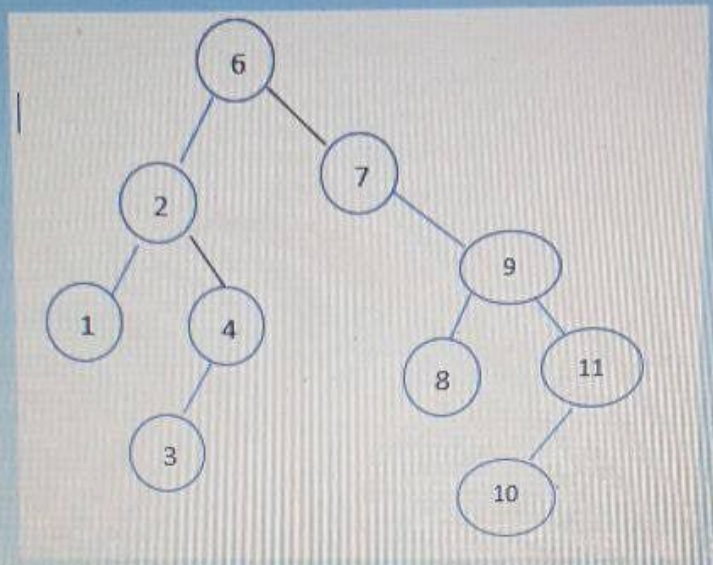
gle Chrome

s2.ebalqa.courses/nfetmoodle/mod/quiz/attempt.php?attempt=236654&page=3

DATA-2021/2020-2-30102325

STRUCTURES-2

Use the following tree to answer the following questions



a) Which of the following insertion of nodes constructs the above tree

6,2,7,9,11,4,8,10,3,1

1,3,4,2,8,10,11,9,7,6 b) The postorder traversal for above tree is

m Cortana. Ask me anything.

DATA STRUCTURES-1-202

?Fill in the spaces

(1 إختر... is the best data structure to represent the priority queue.

إختر...
Linkedlists
Stack
Arrays
Heap

(2 One of these arrays represents إختر...

-DATA STRUCTURES-2

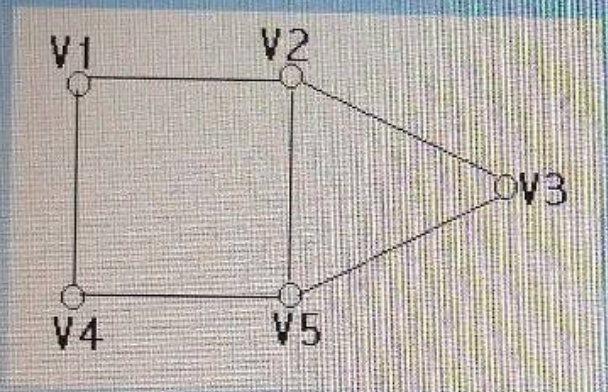
Question **5**

Not yet answered

Marked out of 2.50

Flag question

What would be the number of **zeros** in the adjacency matrix of the given graph?

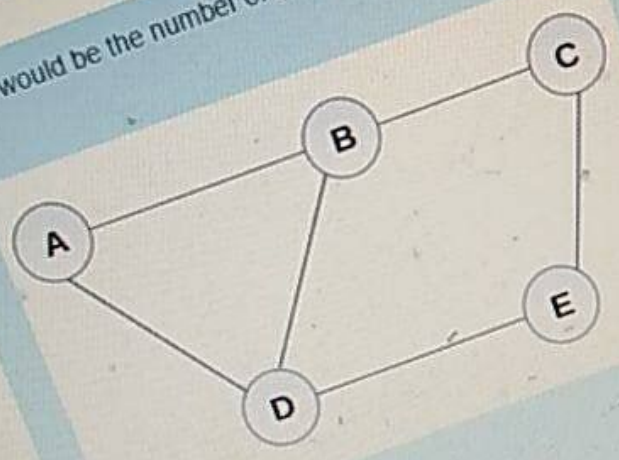


Select one:

- a. 11
- b. None
- c. 19
- d. 12
- e. 13

e. None

What would be the number of **zeros** in the adjacency matrix of the given graph?



Select one:

- a. 13
- b. 19
- c. None
- d. 11
- e. 12

Address

○ d. 12

○ e. 19

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question

If we represent a priority queue using a **sorted LinkList in decreasing order?**

what is the time complexity for

1) add Choose...

Choose...

O (1)

O (n)

O (n/2)

O (log n)

2) pee

3) reme ns Choose...

Fill in the spaces?

1) Heap is the best data structure to represent the priority queue.

2) One of these arrays represents a minimum heap

25 17 14 12 10 8

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2.ebalqa.courses/nfetmoodle/mod/quiz/attempt.php?attempt=236654&page=4

STRUCTURES-2

The following code will find the average of n marks stored in a **doubly** .link list

:please fill in the spaces

```
;int s=0
;int c=0
;float avg
;Node <T> *q
for ( q = head ; q !=NULL ;q=q->next)
}
; s = s + q->data
;++c
{
;s = (float) s/c
;cout<<"Average of the marks is :" <<avg
```

:Consider the following recursive method

```
public static int recurse(int a, int b)
```

tana. Ask me anything.

TRUCTURES-1

In chaining, what data structure is the most appropriate, particularly when fast deleting is a major concern?

Select one:

- a. Doubly linked list
- b. None
- c. Singly linked list
- d. Binary trees
- e. Stack

Fill in the spaces?

1) Choose ____ is the best data structure to represent the priority queue.

e. 4

Assume tail is a pointer that points to the end of a doubly link list

.Fill the spaces in order to make the following code prints all nodes of the linked list in **reverse order**

```
while (tail->prev!=NULL)
}
>>cout [ إختر... ]
[ إختر... ]
{
```

.Consider a hash table of size 7 with hash function $h(k) = k \bmod 7$

the following values: 44, 45, 79, 55, 91, 18, 63 are inserted into this hash table

.Note: collisions are handled by linear probing

?Finally, where is key **18** is located

اختر أحد الخيارات

a. None

b. 5

c. 6

d. 3

e. 4

7 6 5

14 13 12

20 19

لا إله إلا الله

c. 4

d. None

e. 3

سؤال 12

غير مجاب عليه بعد

الدرجة من 2.00

علم هذا السؤال

:Consider the following recursive method

```
public static int recurse(int a, int b)
if (a % b == 2) }
;return a
else
;return recurse(a + b, a - b)
{
```

?What is returned by the call recurse(7, 2)

اختر أحد الخيارات

a. 7

b. 9

c. None

d. 5

e. 14

Zain JO 4G 10:21 AM 42%

AA Not Secure — s2.ebalqa.courses

Not yet answered

Marked out of 2.00

Flag question

If we represent a priority queue using a **sorted LinkList in decreasing order**?

what is the time complexity for

1) add O (n)

2) peekMin O (n/2)

3) removeMin operations O (log n)

Question 8

Not yet answered

Marked out of 2.50

020-2-30102325-DATA TURES-2

The following code will find the average of n marks stored in a **doubly** link list.

please fill in the spaces:

```
int s=0;

int c=0;

float avg;

Node <T> *q;

for ( Choose... ; Choose... ;q=q->next)

{

Choose... ;

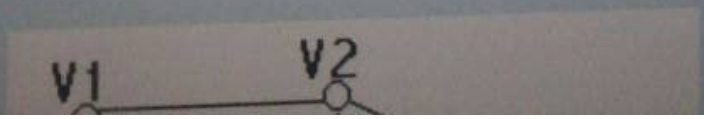
c++;

}

s = (float) s/c;

cout<<"Average of the marks is :" <<avg;
```

What would be the number of **zeros** in the adjacency matrix of the given graph?



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stion

Consider the following recursive method:

```
public static int recurse(int a, int b)
{ if (a % b == 2)
return a;
else
return recurse(a + b, a - b);
}
```

What is returned by the call recurse(7, 2)?

Select one:

- a. 7
- b. 14
- c. 9
- d. 5
- e. None

Address

find the output for the following function

```
void fun(node* head, int x) (1
}

;node* current = head
;int c = 0
} while (current != NULL)
if (current->data != x)
;++c
;current = current->next
{
;cout<< c
{
```

Assume: x=2 head->5->2->2->5->2->null

اختر أحد الخيارات

a. 3

b. 2

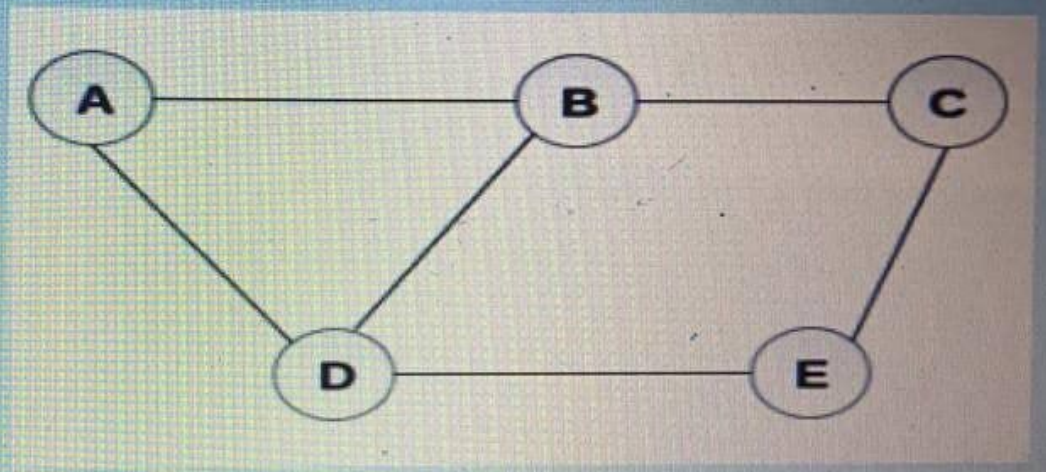
c. 1

d. 4

e. none

DATA STRUCTURES-2-2021

?What would be the number of zeros in the adjacency matrix of the given graph



اختر أحد الخيارات

a. None

b. 19

c. 12

d. 11

e. 13

MARK AS READ

The **maximum** element in the Binary Search Tree (BST) is located at .....?

Select one:

- a. the leftmost node of the tree
- b. the root of the tree
- c. the rightmost node of the tree
- d. the rightmost node of the right subtree for the root
- e. c+d

Decide whether the following sentences are True or False?

1) Operations on the Fibonacci algorithm are a good use of recursion Choose...

2) stack::swap() function in Standard Template Library exchange the contents of one stack with another queue.

Choose...

3) We can implement a stack based on a linked list so that push and pop operations require O(n) time.

Choose...

Next pag

.Consider a hash table of size 7 with hash function *h (k) = k mod 7*

the following values: 44, 45, 79, 55, 91, 18, 63 are inserted into this hash table

.Note: collisions are handled by linear probing

?Finally, where is key **18** is located

اختر أحد الخيارات

a. None

b. 5

c. 6

d. 3

e. 4

7	6	5
14	13	12
	20	19

Assume tail is a pointer that points to the end of a doubly link list

Assume tail is a pointer that points to the end of a doubly link list

to make the following code prints all nodes of the linked list in **reverse order**

```
while (tail->prev!=NULL)
}
>>cout إختر...
إختر...
إختر...
{
```

- إختر...
- tail->prev->data;
- tail->prev;
- tail->next->data;
- tail->next;

The maximum element in the Binary Search Tree (BST) is located at .....?

Select one:

- a. the leftmost node of the tree
- b. the root of the tree
- c. the rightmost node of the tree
- d. the rightmost node of the right subtree for the root
- e. c+d

find the output for the following function

1) void fun(node* head, int x)

```
{
    node* current = head;
    int c = 0;
    while (current != NULL) {
        if (current->data != x)
            c++;
        current = current->next;
    }
    cout<< c;
}
```

Assume: x=2 head->5->2->2->5->2->null

Select one:

- a. 3
- b. 2
- c. 1
- d. 4
- e. none

find the output for the following function

```
void fun(node* head, int x)
}
;node* current = head
;int c = 0
} while (current != NULL)
if (current->data != x)
;++c
;current = current->next
{
;cout<< c
{
```

Assume: x=5 head->5->4->3->5->3->null

اختر أحد الخيارات

a. 3

b. 2

c. 1

d. 4

e. none

6 5 4 3

12 11 10 9

18 17 16 15

0:12:5

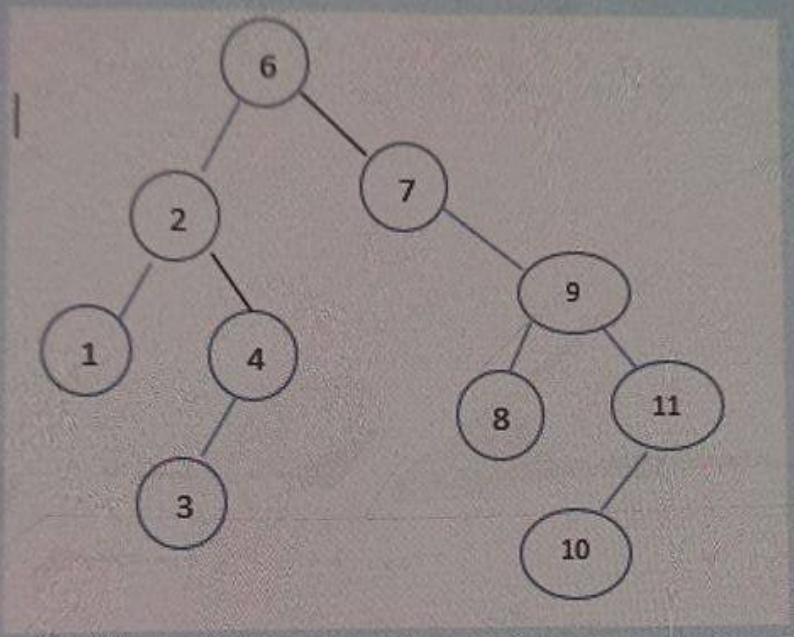
سؤال 14

لا إله إلا الله

الدرجة من 3.00

علّم هذا السؤال

Use the following tree to answer the following questions



a) Which of the following insertion of nodes constructs the above tree

إختر...

b) The postorder traversal for above tree is

إختر...

2020-2-30102325-DATA CTURES-2

Fill in the spaces?

1) To check if a node in a BST is a leaf

Choose...

2) To check if a node in a doubly-linked list is the dummy head node Choose...

3) To check if a node in a BST is an internal node

Choose...

Enqueue is an operation for .....?

Select one:

- a. Removing items from the queue
- b. Inserting items to the queue
- c. None
- d. Inserting items to the stack

Next p

Enqueue is an operation for .....?

Select one:

- a. Removing items from the queue
- b. Inserting items to the queue
- c. Inserting items to the stack
- d. None

Ac
Go

Question 8

yet answered

out of 3.00

estion

of the following insertion of nodes con

b) The postorder traversal for above tree is

1,3,4,2,8,1

Fill in the spaces?

1) To check if a node in a BST is a leaf

2) To check if a node in a doubly-linked

3) To check if a node in a BST is an inte

Choose...

Choose...

if(node->left != NULL || node->right != NULL)

if(node->left == NULL || node->right == NULL)

if(node->left != NULL && node->right != NULL)

if(node->left == NULL && node->right == NULL)

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Next

?If we represent a priority queue using a **sorted LinkList in decreasing order**

what is the time complexity for

O (1) add (1

O (n) peekMin (2

O (1) removeMin operations (3

Assume that you have a **doubly link list**.

Pointer **x** is pointing to the **last node** in the link list and pointer **y** is pointing to **before the last node**.

which of the following will remove the node pointed by **x** from the list?

اختر أحد الخيارات

- a. x->next = y;
  y->prev = x->prev;
  delete x;
- b. x->prev->next = x->next;
  y->prev= x->prev;
  delete x;
- c. y->prev->next = y->next;
  x->prev= y->prev;
  delete x;
- d. delete x;

7

14

STRUCTURES-2

سؤال 11

غير مجاب

الدرجة من

علم

?Fill in the spaces

To check if a node in a BST is a leaf (1

if(node->left == NULL && node->right == NULL)

To check if a node in a doubly-linked list is the dummy head node (2

if(head->prev == NULL)

To check if a node in a BST is an internal node (3

if(node->left == NULL && node->right == NULL)

;delete x

;b. x->prev->next = x->next
;y->prev= x->prev
;delete x

;c. y->prev->next = y->next
;x->prev= y->prev
;delete x

;d. delete x

?In chaining, what data structure is the most appropriate, particularly when fast deleting is a major concern

اختر أحد الخيارات

a. Doubly linked list

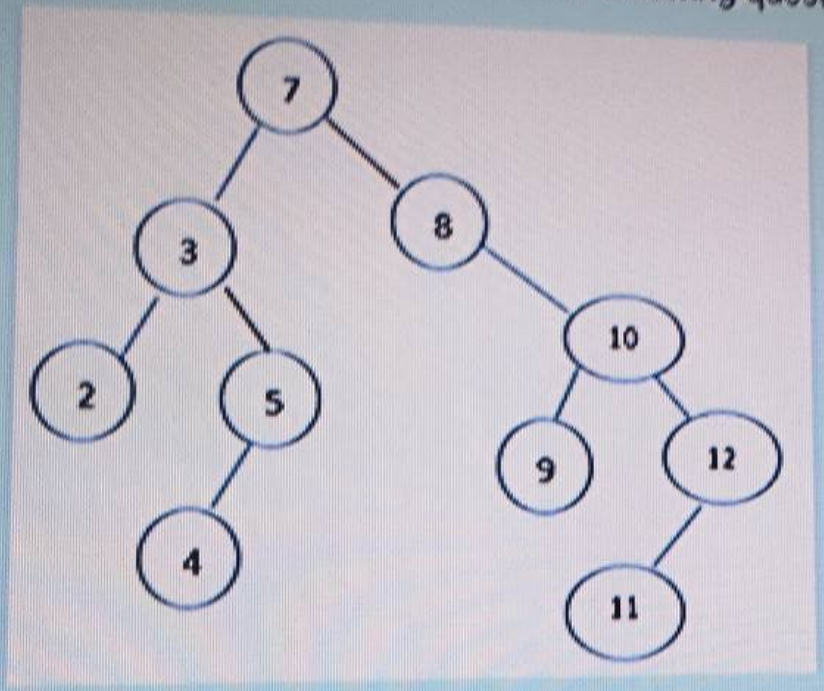
b. None

c. Binary trees

d. Singly linked list

e. Stack

Use the following tree to answer the following questions



a) Which of the following insertion of nodes constructs the above tree Choose...

b) The postorder traversal for above tree is Choose...

d. 4

e. none

In chaining, what data structure is the most appropriate, particularly when fast deleting is a major concern?

اختر أحد الخيارات

a. Stack

b. Doubly linked list

c. Singly linked list

d. Binary trees

e. None

.Assume that you have a **doubly link list**

list and pointer **y** is pointing to **before the last node**

owing will remove the node pointed by **x** from the list

اختر أحد الخيارات

a. x->next = y;
y->prev = x->prev;
delete x;

b. x->prev->next = x->next;
y->prev= x->prev;
delete x;

c. y->prev->next = y->next;
x->prev= y->prev;
delete x;

d. delete x;

priate, particularly when fast deleting is a major concern

اختر أحد الخيارات

a. Doubly linked list

b. None

c. Binary trees

d. Singly linked list

e. Stack

7

14

.Assume that you have a **doubly link list**

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اختر أحد الخيارات

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y->prev = x->prev;
delete x;

b. x->prev->next = x->next;
y->prev= x->prev;
delete x;

c. y->prev->next = y->next;
x->prev= y->prev;
delete x;

d. delete x;

priate, particularly when fast deleting is a major concern

اختر أحد الخيارات

a. Doubly linked list

b. None

c. Binary trees

d. Singly linked list

e. Stack

7

14

:Consider the following recursive method

```
public static int recurse(int a, int b)
if (a % b == 2) }
;return a
else
;return recurse(a + b, a - b)
{
```

?What is returned by the call recurse(7, 2)

اخترأحد الخيارات

a. 7

b. None

c. 5

d. 9

e. 14

الصفحة التالية

find the output for the following function

```
void fun(node* head, int x)
}
;node* current = head
;int c = 0
} while (current != NULL)
if (current->data != x)
;++c
;current = current->next
{
;cout<< c
{
```

Assume: x=5 head->5->4->3->5->3->null

اختر أحد الخيارات

a. 3

b. 2

c. 1

d. 4

e. none

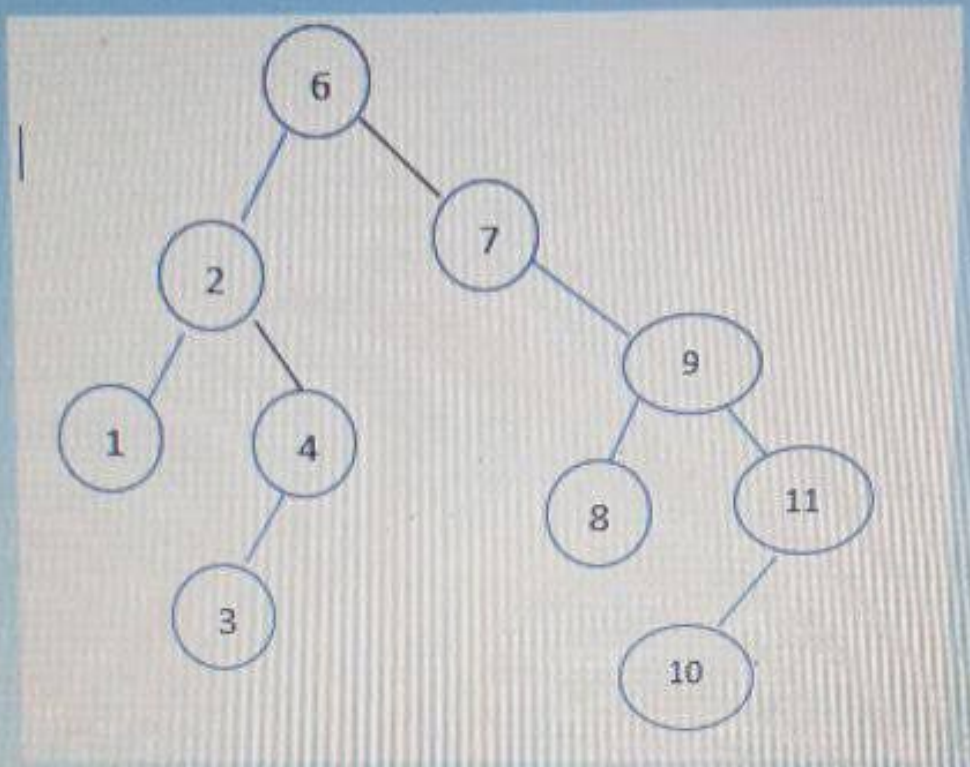
6 5 4 3

12 11 10 9

18 17 16 15

0:12:5

Use the following tree to answer the following questions



a) Which of the following insertion of nodes constructs the above tree

- 6,2,7,9,11,4,8,10,3,1

b) The postorder traversal for above tree is

- 1,3,4,2,8,10,11,9,7,6

سؤال **14**

غير مجاب عليه بعد

الدرجة من 3.00

علِّم هذا السؤال

Assume tail is a pointer that points to the end of a doubly link list

Fill the spaces in order to make the following code prints all nodes of the linked list in **reverse order**.

```
while (tail->prev!=NULL)
{
cout<< tail->prev->data;
tail=tail->prev;
}
```

Question 11

Not yet answered

Marked out of 2.50

Flag question

the number of edges in a **complete undirected graph** of 80 vertices is ....?

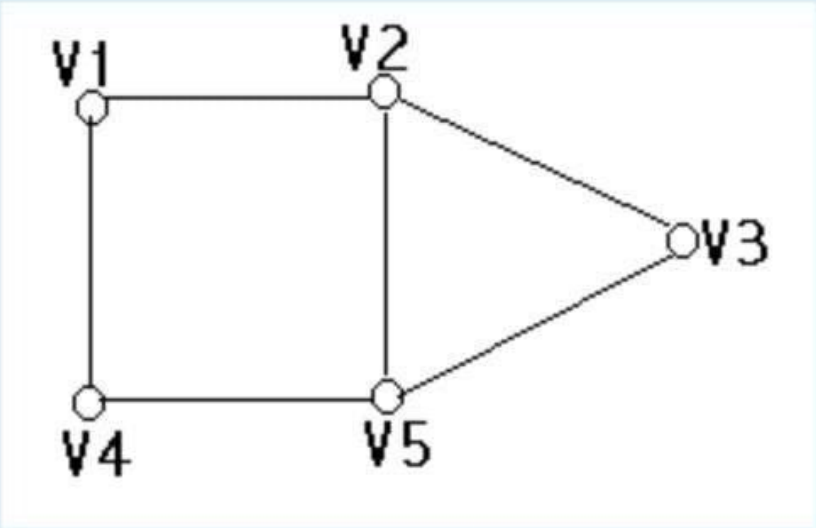
Select one:

- a. exactly equals 3160
- b. None
- c. less than or equals 3160
- d. less than or equals 6320
- e. exactly equals 6320

Marked out of 2.50

Flag question

What would be the number of **zeros** in the adjacency matrix of the given graph?



Select one:

- a. None
- b. 11
- c. 13
- d. 12
- e. 19

Question 14

Not yet answered

Marked out of 2.50

علم هذا السؤال

لا إله إلا الله

Push is an operation for .....?

اختر أحد الخيارات

a. Inserting items to the queue

b. None

c. Inserting items to the BST

d. Inserting items to the stack

سؤال 18

غير مجاب عليه بعد

الدرجة من 2.00

علم هذا السؤال

The **minimum** element in the Binary Search Tree (BST) is located at .....?

اختر أحد الخيارات

a. The rightmost node of the tree

b. the leftmost node Of the tree

c. the root of the tree

d. The leftmost node of the left subtree for the root

e. b+d

الصفحة التالية

```
}
;node* current = head
;int c = 0
} while (current != NULL)
if (current->data != x)
;++c
;current = current->next
{
;cout<< c
{
```

x=5 head->5->4->3->5->3->null

اختر أحد الخيارات

a. 3

b. 2

c. 1

d. 4

e. none

Consider the following keyspace {22, 74, 21, 17, 27, 34, 73, 97} and **h(x)= x mod 10.**

Which of the following statements are true and which are false?

1) 17, 27, 74 hash to the same value Choose...

2) Each item hashes to a different value Choose...

3) If we use chaining then 74, 34 hash to the same value Choose...

Fill in the spaces?

1) Choose... is the best data structure to represent the priority queue.

2) One of these arrays represents a minimum heap Choose...

2020-2-30102325-DATA STRUCTURES-2

find the output for the following function

```
void fun(node* head, int x)
{
   node* current = head;
   int c = 0;
   while (current != NULL) {
      if (current->data != x)
         c++;
      current = current->next;
   }
   cout<< c;
}
```

Assume: x=5 head->5->4->3->5->3->null

Select one:

- a. 3
- b. 2
- c. 1
- d. 4
- e. none

Use the following tree to answer the following questions

Consider the following recursive method:

```
public static int recurse(int a, int b)
{ if (a % b == 2)
return a;
else
return recurse(a + b, a - b);
}
```

What is returned by the call recurse(7, 2)?

Select one:

- a. 9
- b. 7
- c. 14
- d. None
- e. 5

Zain JO 4G 10:32 AM 29%
Not Secure — s2.ebalqa.courses

The following method will find the **product** of all integer values stored in a **doubly link list**, then it will

insert a new node of this product at the end of the link list.

Please fill the spaces.

```
void <T> fun1 ()
{
node<T>*d,*p,*n;
int product= 1;
d = Choose... ;
while (d != NULL)
{
product = Choose... ;
Choose... ;
p=d;
}
```

Zain JO 4G 10:32 AM 29%
Not Secure — s2.ebalqa.courses

The following method will find the **product** of all integer values stored in a **doubly link list**, then it will

insert a new node of this product at the end of the link list.

Please fill the spaces.

```
void <T> fun1 ()
{
node<T>*d,*p,*n;
int product= 1;
d = Choose... ;
while (d != NULL)
{
product = Choose... ;
Choose... ;
p=d;
}
```

e. 19

The **maximum** element in the Binary Search Tree (BST) is located at .....?

Select one:

- a. the leftmost node of the tree
- b. the root of the tree
- c. the rightmost node of the tree
- d. the rightmost node of the right subtree for the root
- e. c+d

Activate Windo
Go to Settings to ac

الدرجة من 3.00

علّم هذا السؤال

find the output for the following function

```
void fun(node* head, int x) (1
}

;node* current = head
;int c = 0
} while (current != NULL)
if (current->data != x)
;++c
;current = current->next
{
;cout<< c
{
```

Assume: x=2 head->5->2->2->5->2->null

اختر أحد الخيارات

a. 3

b. 2

c. 1

d. 4

e. none

Consider the following recursive method:

```
public static int recurse(int a, int b)
{ if (a % b == 2)
return a;
else
return recurse(a + b, a - b);
}
```

What is returned by the call recurse(7, 2)?

Select one:

- a. 9
- b. 7
- c. 14
- d. None
- e. 5

Consider the following recursive method:

```
public static int recurse(int a, int b)
{ if (a % b == 2)
return a;
else
return recurse(a + b, a - b);
}
```

What is returned by the call recurse(7, 2)?

Select one:

- a. 9
- b. 7
- c. 14
- d. None
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Consider the following recursive method:

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{ if (a % b == 2)
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- a. 9
- b. 7
- c. 14
- d. None
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return recurse(a + b, a - b);
}
```

What is returned by the call recurse(7, 2)?

Select one:

- a. 9
- b. 7
- c. 14
- d. None
- e. 5

the number of edges in a complete undirected graph of 80 vertices is ....?

Select one:

- a. less than or equals 3160
- b. exactly equals 6320
- c. exactly equals 3160
- d. less than or equals 6320
- e. None

The following code will find the average of n marks stored in a doubly link list.

please fill in the spaces:

TA STRUCTURES-1

13

swered

t of 3.00

uestion

The following code will find the average of n marks stored in a **doubly** lin

please fill in the spaces:

```
int s=0;

int c=0;

float avg;

Node <T> *q;

for ( Choose...  Choose...  q=q->next)
{
  Ch
c++;
}

s = (float) s/c

cout<<"Average of the marks is " <<avg;
```

Choose...
- q = head->next
- q = 1
- q = head

ion 14

If we represent a priority queue using a sorted LinkList in decreasing order?

courses/nfetmoodle/mod/quiz/attempt.php?attempt=236654&page=8

find the output for the following function

```
void fun(node* head, int x)
}
;node* current = head
;int c = 0
} while (current != NULL)
if (current->data != x)
;++c
;current = current->next
{
;cout<< c
{
```

Assume: x=5 head->5->4->3->5->3->null

اختر أحد الخيارات

a. 3

b. 2

c. 1

d. 4

e. none

a. Ask me anything.

:Consider the following recursive method

```
public static int recurse(int a, int b)
if (a % b == 2) }
;return a
else
;return recurse(a + b, a - b)
{
```

?What is returned by the call recurse(7, 2)

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a. 5

b. 14

c. None

d. 9

e. 7

Flag question

Consider the following recursive method:

```
public static int recurse(int a, int b)
 { if (a % b == 2)
return a;
else
return recurse(a + b, a - b);
}
```

What is returned by the call recurse(7, 2)?

Select one:

- a. 9
- b. 5
- c. None
- d. 14
- e. 7

Question 16

Not yet answered

Marked out of 3.00

d. 14

e. 7

Question 16

Not yet answered

Marked out of 3.00

Flag question

Fill in the spaces?

1) Choose... is the best data structure to represent the priority queue.

2) One of these arrays represents a minimum heap Choose...

Next page

- a. None
- b. 14
- c. 7
- d. 5
- e. 9

Question 16
Not yet answered
Marked out of 2.50
Flag question

Consider a hash table of size 7 with hash function $h(K) = K \bmod 7$.
the following values: 44, 45, 79, 55, 91, 18, 63 are inserted into this hash table
Note: collisions are handled by linear probing.

Finally, where is key **18** is located?

Select one:
- a. 6
- b. 5
- c. 3
- d. 4
- e. None

72°F
ENG US
10:37 AM
6/17/2021

Zain JO 4G 10:21 AM 42%

AA Not Secure — s2.ebalqa.courses

Not yet answered

Marked out of 2.00

Flag question

If we represent a priority queue using a **sorted LinkList in decreasing order**?

what is the time complexity for

1) add O (n)

2) peekMin O (n/2)

3) removeMin operations O (log n)

Question 8

Not yet answered

Marked out of 2.50

Zain JO 4G 10:37 AM 25%
Not Secure — s2.ebalqa.courses

Marked out of 2.00

Flag question

Consider the following keyspace {22, 34, 21, 77, 87, 31, 73, 97} and **h(x)= x mod 10.**

Which of the following statements are true and which are false?

1) 77, 87, 71 hash to the same value

Choose...

2) Each item hashes to a different value

Done

Choose...

False

True

If we represent a priority queue using a **sorted LinkList in decreasing order**?

what is the time complexity for

1) add Choose... ▾

2) peekMin Choose... ▾

3) removeMin operations Choose... ▾

Marked out of 2.00

Flag question

Consider the following keyspace {22, 34, 21, 77, 87, 31, 73, 97} and **h(x)= x mod 10.**

Which of the following statements are true and which are false?

1) 77, 87, 71 hash to the same value

Choose...

2) Each item hashes to a different value

Choose...

3) If we use chaining then 21, 31 hash to the same value Choose...

Finish attempt ...

QUIZ NAVIGATION

1 2 3 4 5 6 7 8

You are logged in as 31915007505

A STRUCTURES-1

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uestion

In chaining, what data structure is the most appropriate, particularly when fast deleting is a major concern?

Select one:

- a. Stack
- b. Doubly linked list
- c. None
- d. Binary trees
- e. Singly linked list

on 18

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g question

Push is an operation for .....?

Select one:

- a. Inserting items to the queue

You are logged in as 31915007505

A STRUCTURES-1

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on 18

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out of 2.00

g question

Push is an operation for .....?

Select one:

- a. Inserting items to the queue

uestion

- b. Doubly linked list
- c. None
- d. Binary trees
- e. Singly linked list

tion 18

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Flag question

Push is an operation for .....?

Select one:

- a. Inserting items to the queue
- b. Inserting items to the stack
- c. None
- d. Inserting items to the BST

.Consider the following keyspace {22, 74, 21, 17, 27, 34, 73, 97} and **h(x)= x mod 10**

?Which of the following statements are true and which are false

False hash to the same value 74 ,27 ,17 (1

True Each item hashes to a different value (2

True If we use chaining then 74, 34 hash to the same value (3

.Consider the following keyspace {22, 74, 21, 17, 27, 34, 73, 97} and **h(x)= x mod 10**

?Which of the following statements are true and which are false

False hash to the same value 74 ,27 ,17 (1

True Each item hashes to a different value (2

True If we use chaining then 74, 34 hash to the same value (3

Question **18**

Not yet answered

Marked out of 2.00

Flag question

Consider the following recursive method:

```
public static int recurse(int a, int b)
 { if (a % b == 2)
return a;
else
return recurse(a + b, a - b);
}
```

What is returned by the call recurse(7, 2)?

Select one:

- a. 5
- b. 14
- c. 9
- d. None
- e. 7

73°F

Question **18**

Not yet answered

Marked out of 2.00

Flag question

Consider the following recursive method:

```
public static int recurse(int a, int b)
 { if (a % b == 2)
return a;
else
return recurse(a + b, a - b);
}
```

What is returned by the call recurse(7, 2)?

Select one:

- a. 5
- b. 14
- c. 9
- d. None
- e. 7

73°F

```
Node <T> *q;
for ( q = head->next ; q<=n ;q=q->next)
{
s = s + q->data ;
c++;
}
s = (float) s/c;
cout<<"Average of the marks is :" <<avg;
```

Question 14

Not yet answered

Marked out of 3.00

Flag question

Assume we have a priority queue which is implemented using an unsorted linked list.

Important Note:

Assume we have two references, the head for the beginning of the list and tail for the end of the list.

What is the time complexity of :

1) the enqueue operation ? O (N)

2) the dequeue operation? O (N)

```
Node <T> *q;
for ( q = head->next ; q<=n ;q=q->next)
{
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c++;
}
s = (float) s/c;
cout<<"Average of the marks is :" <<avg;
```

Question 14

Not yet answered

Marked out of 3.00

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1) the enqueue operation ? O (N)

2) the dequeue operation? O (N)

TRUCTURES-1

In chaining, what data structure is the most appropriate, particularly when fast deleting is a major concern?

Select one:

- a. Stack
- b. Doubly linked list
- c. None
- d. Binary trees
- e. Singly linked list

Push is an operation for .....?

Select one:

- a. Inserting items to the queue

The following method will find the **product** of all integer values stored in a **doubly link list**, then it will insert a new node of this product at the end of the link list.

Please fill the spaces.

```
void <T> fun1 ()
{
node<T>*d,*p,*n;
int product= 1;
d = [اختر...] ;
while (d != NULL)
{
product = [اختر...] ;
[اختر...] ;
p=d;
{
n=new node<T>;
[اختر...]
[اختر...]
```

STRUCTURES-1

You are

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Assume that you have a **doubly link list.**

Pointer **x** is pointing to the **last node** in the link list and pointer **y** is pointing to **before the last node.**

which of the following will remove the node pointed by **x** from the list?

Select one:

- a. delete x;
- b. y->prev->next = y->next;
  x->prev= y->prev;
  delete x;
- c. x->prev->next = x->next;
  y->prev= x->prev;
  delete x;
- d. x->next = y;
  y->prev = x->prev;
  delete x;

Suppose you insert the values 40, 20, 70, 50, and 5 into a binary search tree, and then trace the following

?..... The **maximum** element in the Binary Search Tree (BST) is located at

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a. the leftmost node of the tree

b. the root of the tree

c. the rightmost node of the tree

d. the rightmost node of the right subtree for the root

e. c+d

2

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stion

Suppose you insert the values 40, 20, 70, 50, and 5 into a binary search tree, and then trace the following function:

```
void W (Node *p)
{
 if (p != 0)
   cout << p->data << "    ";
  W(p->left);
 }
```

Select one:

- a. 40 50 5
- b. 40 20 5
- c. 40 20 50
- d. None
- e. 40 50 70

STRUCTURES-1

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stion

Consider a hash table of size 7 with hash function $h(k) = k \bmod 7$.

the following values: 44, 45, 79, 55, 91, 18, 63 are inserted into this hash table

Note: collisions are handled by linear probing.

Finally, where is key **18** is located?

Select one:

- a. 4
- b. 3
- c. None
- d. 6
- e. 5

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tion

The following method will find the **product** of all integer values stored in a **doubly link list**, th

insert a new node of this product at the end of the link list.

Please fill the spaces.

```
void <T> fun1 ()
{
node<T>*d,*p,*n;
int product= 1;
d = head ;
while (d != NULL)
{
product = product++ ;
p = p-> next ;
p=d;
}
n=new node<T>;
n -> data = product ;
p -> next = n ;
n->next=NULL;
}
```

TRUCTURES-1

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Assume tail is a pointer that points to the end of a doubly link list

Fill the spaces in order to make the following code prints all nodes of the linked list in reverse order.

```
while (tail->prev!=NULL)
{
cout<<  tail->prev->data;

 tail++;

}
```

doubly link list, then it will