CS301 DATA STRUCTURE
Grand Quiz Solved 100 % Confirm
(Covid-19)
By Sonu Ilyas Mughal
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CONTACT FOR SOLVING QUIZ
Question # 1 of 30 (Start time: 02:32:37 AM, 18 July 2020)

Which of the following is a non-linear data structure?

Select the correct option

- Stack
- Queue
- Tree
- Linked List

(Select one option)
Question # 2 of 30 (Start time: 02:33:13 AM, 18 July 2020)

For every process executing, the last **part of the memory is for** ____________ of the program.

Select the correct option:

- Data
- Code
- Stack
- Heap
Question # 3 of 30 ( Start time: 02:34:22 AM, 18 July 2020 )

While implementing non-recursive traversal for Binary Search Tree, we need to implement

Select the correct option

- Queue
- Stack
- Min heap
- Max heap
**Question # 4 of 30 (Start time: 02:35:01 AM, 18 July 2020)**

Suppose we have the following values to be inserted in constructing AVL tree:
20, 23, 25, 10, 12, 13
Tell when first rotation will take place,

**Select the correct option**

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✅</td>
<td>after inserting node 25</td>
</tr>
<tr>
<td></td>
<td>after inserting node 23</td>
</tr>
<tr>
<td></td>
<td>after inserting node 10</td>
</tr>
<tr>
<td></td>
<td>after inserting node 12</td>
</tr>
</tbody>
</table>
For searching a particular number in Binary Search Tree (if it is not present), the maximum number of comparisons will be _______ comparison at each level.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Question # 6 of 30 (Start time: 02:36:50 AM, 18 July 2020)**

Stack and Queue can be implemented using ________.

**Select the correct option**

- [ ] Singly Link List
- [ ] Binary Tree
- [ ] Binary Search Tree
- [ ] AVL Tree
Question # 7 of 30 ( Start time: 02:37:42 AM, 18 July 2020 )

Which operation of queue data structure is used to get front element from the queue and then remove it from the queue?

<table>
<thead>
<tr>
<th>Select the correct option</th>
</tr>
</thead>
<tbody>
<tr>
<td>enqueue()</td>
</tr>
<tr>
<td>dequeue()</td>
</tr>
<tr>
<td>front()</td>
</tr>
<tr>
<td>remove()</td>
</tr>
</tbody>
</table>
Question # 8 of 30 (Start time: 02:38:08 AM, 18 July 2020)

How many cases of rotation are there in AVL tree?

Select the correct option

- 2
- 4
- 6
- 8
Question # 9 of 30 (Start time: 02:38:18 AM, 18 July 2020)

A stack carries ___________ behavior.

Select the correct option

- FIFO
- LIFO
- AVCO
- FEFO
Question # 10 of 30  (Start time: 02:38:30 AM, 18 July 2020)

A type of tree in which for each node, the value of right node is greater than root node and value of left node is less than root then is called __________.

Select the correct option

- Full Binary Tree
- Binary Search Tree
- Complete Binary Tree
- Perfect Binary Tree
One should be careful about transient ________ that are stored by reference in data structures.

Select the correct option:

- objects
- stack
- function
- tree
Question # 12 of 30 (Start time: 02:39:21 AM, 18 July 2020)

Which data structure is needed to convert infix expression to postfix expression?

Select the correct option

- Graph
- Tree
- Queue
- Stack

Correct answer: Stack
Question # 13 of 30 (Start time: 02:39:39 AM, 18 July 2020)

start() method of List class is used to:

Select the correct option

- Moves the “current” pointer to very first element.
- Moves the “current” pointer to very last element.
- Moves the “current” pointer to one step after the first element of the array.
- Moves the “current” pointer to one step before the first element of the array.
Question # 14 of 30  (Start time: 02:39:58 AM, 18 July 2020)

Consider the linked list having data [6, 72, 35, 65, 25] stored in it. While current pointer is pointing to memory location having 35 stored in it. What will be the resultant linked list after calling add(18) function on the given linked list.

Select the correct option

- 6, 18, 72, 35, 65, 25
- 6, 72, 18, 35, 65, 25
- 6, 72, 35, 18, 65, 25
- 6, 72, 35, 65, 25, 18
Question # 15 of 30 (Start time: 02:40:56 AM, 18 July 2020)

_________ of an empty AVL tree is defined to be -1.

Select the correct option

- Length
- Height
- Width
- Number
Question # 16 of 30  (Start time: 02:41:09 AM, 18 July 2020)

isEmpty() method of stack class will return true when:

Select the correct option

- Stack is empty
- Stack is full
- Stack is not empty nor full
- Stack is partially empty
Question # 17 of 30 (Start time: 02:41:22 AM, 18 July 2020)
Every ________ tree is a binary search tree.

Select the correct option

- AVL
- binary
- big
- small
Question # 18 of 30 (Start time: 02:41:53 AM, 18 July 2020)

Parameter passing (by value or by reference) is similar to PASCAL.

Select the correct option

<table>
<thead>
<tr>
<th>Option</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>JAVA</td>
<td></td>
</tr>
<tr>
<td>C++</td>
<td>✗</td>
</tr>
<tr>
<td>COBOL</td>
<td></td>
</tr>
<tr>
<td>FORTRAN</td>
<td></td>
</tr>
</tbody>
</table>
## CS301: Grand Quiz

**Question # 20 of 30 (Start time: 02:42:59 AM, 18 July 2020)**

Which of the following is not a form of expression?

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Correct Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Infix</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Postfix</td>
<td>✗</td>
</tr>
<tr>
<td></td>
<td>Prefix</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Postfix</td>
<td></td>
</tr>
</tbody>
</table>
Question # 21 of 30  ( Start time: 02:43:36 AM, 18 July 2020 )

When we compare recursive method calls and non-recursive method calls, following statement is true.

Select the correct option

- Recursion is implemented in the same way as other function calls are implemented

- Non-recursive methods are always efficient than recursive methods

- Both options are true

- None of the above options are true
Question # 22 of 30 (Start time: 02:44:03 AM, 18 July 2020)

During deletion of node from BST, if we found this node don't have in-order successor and predecessor. It means this node is __________.

Select the correct option

- Left most node in the binary search tree
- Right most node in binary search tree
- Root node
- None of given options
**Question # 23 of 30**  
*Start time: 02:45:32 AM, 18 July 2020*

A node in AVL tree can become imbalanced due to.

<table>
<thead>
<tr>
<th>Correct Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>insertion operation</td>
</tr>
<tr>
<td>deletion operation</td>
</tr>
<tr>
<td>both insertion and deletion operation</td>
</tr>
<tr>
<td>none of the given options</td>
</tr>
</tbody>
</table>
Question # 24 of 30 (Start time: 02:47:05 AM, 18 July 2020)

There are common methods to traverse a Binary Search Tree.

Select the correct option

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Question # 25 of 30 (Start time: 02:47:58 AM, 18 July 2020)

Security of data is the main usage of AVL tree.

Select the correct option

- True
- False
- In some cases
- None of the given
Question # 2b of 30  [Start time: 02:48:08 AM, 18 July 2020]

__________ is when function is calling to itself.

Select the correct option

- Loop
- Recursion
- Iteration
- Nested loop
Question # 27 of 30 (Start time: 02:48:33 AM, 18 July 2020)

Consider the following push operations of a Stack:
Stack.push(4);
Stack.push(6);
Stack.push(5);
Stack.push(8);
If a user calls a pop() operation, then which value will be returned?

Select the correct option

8
4
6
5
Question # 28 of 30  (Start time: 02:48:54 AM, 18 July 2020)

Leaf node of binary search tree contains ________

Select the correct option

- One Null pointer
- Three Null pointers
- Two Null pointers
- All of the given
Question # 29 of 30 ( Start time: 02:49:46 AM, 18 July 2020 )

isFull() method of stack class will return true when:

Select the correct option

- Stack is empty
- Stack is full
- Stack is not empty nor full
- Stack is partially full
Question # 30 of 30 (Start time: 02:49:58 AM, 18 July 2020)
Consider the linked list implementation of a stack. Which of the following node is considered as Top of the stack?

Select the correct option
- Any node
- Last node
- Middle node
- First node
Question # 1 of 30 (Start time: 03:10:18 AM, 18 July 2020)

Which one of the following calling method does not change the original value of the argument in the calling function?

Select the correct option

- Call by passing reference of the argument
- Call by passing the address of the argument
- Call by passing the value of the argument
- None of the given options
The lifetime of a transient object can exceed that of the application which is accessing it.

**Select the correct option**

- True
- False
- In some cases
- None of the given
Question # 4 of 30 (Start time: 03:12:38 AM, 18 July 2020)

There are _______ cases of Rotation in AVL tree.

Select the correct option

2

3

4

5
Question # 5 of 30 (Start time: 03:12:52 AM, 18 July 2020)

If a node is inserted in outer side of a node in binary search tree then to make it AVL tree,

Select the correct option

- we may have to apply single rotation
- we may have to apply double rotation
- We can use any one of single and double rotation.
- None of the options.
**Question # 6 of 30 ( Start time: 03:13:39 AM, 18 July 2020 )**

Local variables defined inside function body are ________ automatically at the end of function execution.

**Select the correct option**

- created
- destroyed
Question # 7 of 30 ( Start time: 03:14:43 AM, 18 July 2020 )

The post order traversal of a binary tree is DEBFCA. Find out the pre order traversal.

Select the correct option:

- ABFCDE
- ADBFEC
- ABDECF
- ABDCEF
Question # 8 of 30 (Start time: 03:16:04 AM, 18 July 2020)

The back() method decreases the value of variable current by __________.

Select the correct option

- Four
- Three
- Two
- One (Correct)

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**Question # 9 of 30 (Start time: 03:16:42 AM, 18 July 2020)**

If both left and right nodes of a node are NULL then this type of node is called a ______ node.

**Select the correct option**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non leaf</td>
</tr>
<tr>
<td></td>
<td>Internal</td>
</tr>
<tr>
<td></td>
<td>Inner</td>
</tr>
<tr>
<td></td>
<td>Leaf</td>
</tr>
</tbody>
</table>
Question # 10 of 30 (Start time: 03:17:00 AM, 18 July 2020)

The depth of a binary tree is

Select the correct option

- Total number of nodes in the tree
- Number of leaf nodes in the tree
- Number of non-leaf nodes in the tree
- Maximum level of a leaf
Question # 11 of 30 (Start time: 03:17:56 AM, 18 July 2020)
The next field in the last node in a singly-linked list is set to _______.

Select the correct option

- 0
- 1
- NULL
- false
Question # 12 of 30  (Start time: 03:18:18 AM, 18 July 2020)

If numbers 5, 222, 4, 48 are inserted in a queue, which one will be removed first?

Select the correct option

1. 48
2. 4
3. 222
4. 5
Question # 13 of 30 (Start time: 03:18:53 AM, 18 July 2020)

The smallest value element in a binary search tree (Each node with left and right pointers) lies at

Select the correct option

<table>
<thead>
<tr>
<th>Option</th>
<th>Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Root Node</td>
<td></td>
</tr>
<tr>
<td>Left Child of Root</td>
<td>✔</td>
</tr>
<tr>
<td>Right Most Node</td>
<td></td>
</tr>
<tr>
<td>Left Most Node</td>
<td></td>
</tr>
</tbody>
</table>
Question # 14 of 30 ( Start time: 03:20:05 AM, 18 July 2020 )
Which one is not the property of binary tree?

Select the correct option

- Every node in binary tree should have maximum two children.
- Only one node should have two parents.  (Correct)
- Sibling nodes should have same parent.
- None of given options.
Question # 15 of 30 (Start time: 03:20:32 AM, 18 July 2020)

The type of expression in which operator succeeds its operands is ________ expression.

Select the correct option

- Infix
- Postfix
- Prefix
- Preorder
Question # 16 of 30 (Start time: 03:21:31 AM, 18 July 2020)

_____ is a collection of elements arranged in a linear order.

Select the correct option

- Binary Search Tree
- AVL Tree
- Stack
- Heap
Question # 17 of 30 (Start time: 03:22:32 AM, 18 July 2020)

The _______ of a binary tree is the maximum level of its leaves (also called the depth).

Select the correct option

- Level
- Width
- Height
- None of the above

[Circle one option]
Question # 8 of 30 (Start time: 03:23:48 AM, 18 July 2020)

next() method of List class is used to:

Select the correct option

- Moves the current position backward one element
- Moves the “current” pointer to two steps after the last element of the array
- Moves the current position forward one element
- Moves the “current” pointer to two steps before the last element of the array

Correct answer: Moves the “current” pointer to two steps before the last element of the array
Question # 19 of 30 (Start time: 03:24:04 AM, 18 July 2020)

Which of the following is not a form of expression?

<table>
<thead>
<tr>
<th>Select the correct option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infix</td>
</tr>
<tr>
<td>Postfix</td>
</tr>
<tr>
<td>Prefix</td>
</tr>
<tr>
<td>Postfix</td>
</tr>
</tbody>
</table>
Question # 20 of 30 (Start time: 03:24:24 AM, 18 July 2020)

The lifetime of a transient object cannot exceed that of the application.

Select the correct option:

- True
- False
- In some cases
- None of the given
Question # 21 of 30 (Start time: 03:24:46 AM, 18 July 2020)

What will be the postfix expression of following infix expression?
A*B/C+D-E

Select the correct option

- A B / C * D + E -
- A B * C / D + E -
- A B * C + D E / -
- A B + C D / + E -
- A B + C D / + E -
Question # 22 of 30  ( Start time: 03:26:09 AM, 18 July 2020 )

Leaf node of binary search tree contains

<table>
<thead>
<tr>
<th>Select the correct option</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>One Null pointer</td>
<td>☐</td>
</tr>
<tr>
<td>Three Null pointers</td>
<td>☐</td>
</tr>
<tr>
<td>Two Null pointers</td>
<td>☑</td>
</tr>
<tr>
<td>All of the given</td>
<td>☐</td>
</tr>
</tbody>
</table>
Question # 24 of 30 ( Start time: 03:27:04 AM, 18 July 2020 )

There are four cases of rotation in an ________ tree.

Select the correct option

- ELV
- EVL
- AVL
- AVL

Correct answer: AVL
Question # 25 of 30 (Start time: 03:27:24 AM, 18 July 2020)

The tree data structure is a

Select the correct option

- Linear data structure
- Non-linear data structure
- Graphical data structure
- Data structure like queue
Question # 26 of 30  (Start time: 03:28:47 AM, 18 July 2020)

There are _____ common methods to traverse a Binary Search Tree.

Select the correct option

1

2

3

4
Question # 27 of 30  (Start time: 03:28:59 AM, 18 July 2020)

"BinarySearchTree() is a ________________.

Select the correct option

<table>
<thead>
<tr>
<th>Constructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Destructor</td>
</tr>
<tr>
<td>Switch case</td>
</tr>
<tr>
<td>Template method call</td>
</tr>
</tbody>
</table>
Question # 29 of 30 ( Start time: 03:30:57 AM, 18 July 2020 )

Which of the following statement is correct for the variable "current--"?

Select the correct option

- current = current + 1
- current = current - 1
- current = current - 2
- current - 1 = current
Question # 30 of 30 ( Start time: 03:31:49 AM, 18 July 2020 )
Which of the following is a non-linear data structure?

<table>
<thead>
<tr>
<th>Option</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Stack</td>
<td></td>
</tr>
<tr>
<td>Queue</td>
<td></td>
</tr>
<tr>
<td>Tree</td>
<td>●</td>
</tr>
<tr>
<td>Linked List</td>
<td></td>
</tr>
</tbody>
</table>
Question #1 of 30 (Start time: 03:38:22 AM, 18 July 2020)

A list is the collection of items of the ________

Select the correct option

- May be of same or may be of different type
- different type
- same type
- None of the above
Question # 2 of 30  (Start time: 03:39:24 AM, 18 July 2020)
If we write functions for recursive and non recursive inorder traversal method of BST, what will be the difference between its functions prototypes?

Select the correct option

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Different return types</td>
<td></td>
</tr>
<tr>
<td>Different function names</td>
<td></td>
</tr>
<tr>
<td>Different arguments list</td>
<td></td>
</tr>
<tr>
<td>Nothing will be different</td>
<td></td>
</tr>
<tr>
<td>Option</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-------------</td>
</tr>
<tr>
<td>10</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>✔</td>
</tr>
<tr>
<td>12</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
</tr>
</tbody>
</table>
Question # 4 of 30 ( Start time: 03:41:12 AM, 18 July 2020 )

Compiler uses which one of the following in Function calls,

Select the correct option

- Stack
- Queue
- Binary Search Tree
- AVL Tree
Question # 5 of 30 (Start time: 03:41:59 AM, 18 July 2020)

A binary tree whose every node has either zero or two children is called ________

Select the correct option

- Complete binary tree
- Binary search tree
- Strictly binary tree
- None of above

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Question # 6 of 30 (Start time: 03:43:03 AM, 18 July 2020)

In simple or singly linked list there is/are ________ pointer/s in each node.

Select the correct option

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td><img src="https://example.com/button.png" alt="Select button" /></td>
</tr>
<tr>
<td>Two</td>
<td><img src="https://example.com/button.png" alt="Select button" /></td>
</tr>
<tr>
<td>Three</td>
<td><img src="https://example.com/button.png" alt="Select button" /></td>
</tr>
<tr>
<td>Four</td>
<td><img src="https://example.com/button.png" alt="Select button" /></td>
</tr>
</tbody>
</table>
Question # 7 of 30 ( Start time: 03:43:32 AM, 18 July 2020 )

A _________ is a tree in which every level, except possibly the last, is completely filled, and all nodes are as far left as possible.

Select the correct option

- Strict Binary tree
- Full Binary tree
- Perfect Binary tree
- Complete binary tree
Question # 10 of 30 (Start time: 03:46:25 AM, 18 July 2020)

For every process executing, the first part of the memory is for __________ of the program.

<table>
<thead>
<tr>
<th>Option</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Data</td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>X</td>
</tr>
<tr>
<td>Stack</td>
<td></td>
</tr>
<tr>
<td>Heap</td>
<td></td>
</tr>
</tbody>
</table>
CS301: Grand Quiz

Question # 11 of 30 (Start time: 03:47:01 AM, 18 July 2020)

Allocating and de-allocating memory for linked list nodes does take ________ time than pre-allocated array.

Select the correct option

- Less
- More
- Equal
- No
**Question # 13 of 30 (Start time: 03:48:56 AM, 18 July 2020)**

AVL tree takes maximum time to search an element.

<table>
<thead>
<tr>
<th>Select the correct option</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.44 Log2n</td>
<td>**</td>
</tr>
<tr>
<td>Log2(n+n)</td>
<td></td>
</tr>
<tr>
<td>Log2(n+1) +1</td>
<td></td>
</tr>
<tr>
<td>1.88 Log2n</td>
<td></td>
</tr>
</tbody>
</table>
Question # 16 of 30 ( Start time: 03:51:43 AM, 18 July 2020 )

In which of the following function signatures, the value of variable "num" cannot be changed in function body?

Select the correct option

- int cube(int num)
- int cube(int& num)
- int cube(const int& num)
- int cube(int* num)
Question # 17 of 30  (Start time: 03:52:32 AM, 18 July 2020)

~BinarySearchTree() is a _____________.

Select the correct option

- Constructor
- Destructor
- Switch case
- Template method call
Question # 18 of 30 (Start time: 03:52:45 AM, 18 July 2020)

_________ is the major factor to see the efficiency of a program.

Select the correct option

- Quality
  - [ ]
- Time
  - [x]
- Correctness
  - [ ]
- None of the give
  - [ ]
Question # 19 of 30 (Start time: 03:52:58 AM, 18 July 2020)

is an area in computer memory that is allocated dynamically.

Select the correct option

- Heap
- Stack
- Queue
- Linked List
Question # 20 of 30 (Start time: 03:53:10 AM, 18 July 2020)
Which of the following is the limitation of the array?

Select the correct option

- Cannot store user define objects
- Cannot store more than 1000 elements
- Have no random access
- Fix size

Correct answer: Fix size
Question # 22 of 30 ( Start time: 03:55:30 AM, 18 July 2020 )

The depth of a complete binary tree is given by __________

Select the correct option

<table>
<thead>
<tr>
<th>Option</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$D_n = n \log_2 n$</td>
</tr>
<tr>
<td>2</td>
<td>$D_n = n \log_2 n + 1$</td>
</tr>
<tr>
<td>3</td>
<td>$D_n = \log_2 n$</td>
</tr>
<tr>
<td>4</td>
<td>$D_n = \log_2(n+1)-1$</td>
</tr>
</tbody>
</table>
Question # 23 of 30 (Start time: 03:56:24 AM, 18 July 2020)

In level-order traversal for Binary Search Tree, ________ data structure is used.

Select the correct option

- Stack
- Queue
- Linked List
- Heap
Question # 24 of 30 (Start time: 03:57:18 AM, 18 July 2020)

One should be careful about transient _________ that are stored by reference in data structures.

Select the correct option

- objects
- stack
- function
- tree
**Question # 25 of 30** *(Start time: 03:57:30 AM, 18 July 2020)*

In singly linked list “next” field of node contains:

<table>
<thead>
<tr>
<th>Select the correct option</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Address of next node</td>
<td></td>
</tr>
<tr>
<td>Object of next node</td>
<td></td>
</tr>
<tr>
<td>Object of current node</td>
<td></td>
</tr>
<tr>
<td>Address of head node</td>
<td></td>
</tr>
</tbody>
</table>
Question # 26 of 30 ( Start time: 03:57:48 AM, 18 July 2020 )

Which of the following statement is false?

Select the correct option

- Arrays are dense lists and static data structure
- Data elements in linked list need not be stored in adjacent space in memory
- Pointers store the next data element of a list
- Linked lists are collection of the nodes that contain information part and next pointer

[ [ ] ]
Question # 27 of 30 (Start time: 03:58:23 AM, 18 July 2020)

Which of the following operation returns but do not removes top value of the stack?

Select the correct option

- push
- pop
- top
- first
Question # 28 of 30  (Start time: 03:58:44 AM, 18 July 2020)

Which of the following is known as "Last-In, First-Out" or LIFO Data Structure?

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linked List</td>
<td></td>
</tr>
<tr>
<td>Stack</td>
<td></td>
</tr>
<tr>
<td>Queue</td>
<td></td>
</tr>
<tr>
<td>Tree</td>
<td></td>
</tr>
</tbody>
</table>
Question # 29 of 30 (Start time: 03:59:16 AM, 18 July 2020)

In _______ various cells of memory are not located continuously.

Select the correct option

- Arrays
- Linked list
- Circular array
- None of the given
Question # 30 of 30 (Start time: 04:00:12 AM, 18 July 2020)

The ________ of a node in a binary tree is defined as the height of its left subtree minus height of its right subtree.

Select the correct option

- Height
- Balance
- Width
- None of the above
Question # 2 of 30  ( Start time: 01:47:23 AM, 18 July 2020 )

_____ is the major factor to see the efficiency of a program.

Select the correct option

- Quality
- Time
- Correctness
- None of the give
**Question # 3 of 30** (Start time: 01:47:50 AM. 18 July 2020)

__________ is an area in computer memory that is allocated dynamically.

**Select the correct option**

- **Heap**
- **Stack**
- **Queue**
- **Linked List**
Question # 4 of 30 (Start time: 01:48:11 AM, 18 July 2020)

In doubly linked list there is/are _______ pointer/s in each node.

Select the correct option

- One
- Two
- Three
- Four
objects (objects accessed by pointers) are called anonymous objects.

Select the correct option

- private
- Nameless
- Friend
- public
Question # 6 of 30 (Start time: 01:48:56 AM, 18 July 2020)

Level-order traversal for Binary Search Tree can be implemented, ____________.

Select the correct option

- Only through recursive method
- Only through non-recursive method
- Through both recursive method call and non-recursive method call
- Through max-heap
Question # 7 of 30 (Start time: 01:50:11 AM, 18 July 2020)

Binary Search Tree violates the condition of AVL tree when any node has balance equal to

Select the correct option

1. 2 or -2
2. 1 or -1
3. 0
4. None of the options.
**Question # 8 of 30 ( Start time: 01:51:25 AM, 18 July 2020 )**

In-order traversal method traverses the data in:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non sorted order</td>
<td></td>
</tr>
<tr>
<td>Random order</td>
<td></td>
</tr>
<tr>
<td>Sorted order</td>
<td></td>
</tr>
<tr>
<td>None of the given</td>
<td></td>
</tr>
</tbody>
</table>
Consider the linked list having data [6, 72, 35, 65, 25] stored in it. While current pointer is pointing to memory location having 72 stored in it. After calling add(4) function on the following linked list current point will point to memory location having value?

Select the correct option

<table>
<thead>
<tr>
<th>Option</th>
<th>Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>72</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>
## Question # 10 of 30 (Start time: 01:53:21 AM, 18 July 2020)

Which of the following is known as "Last-In, First-Out" or LIFO Data Structure?

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>○</td>
<td>Linked List</td>
</tr>
<tr>
<td>-</td>
<td>Stack</td>
</tr>
<tr>
<td>○</td>
<td>Queue</td>
</tr>
<tr>
<td>○</td>
<td>Tree</td>
</tr>
</tbody>
</table>
**Question # 11 of 30 (Start time: 01:53:43 AM, 18 July 2020)**

While implementing stack with an array and to achieve LIFO behavior, we used push and pop elements at ____________.

<table>
<thead>
<tr>
<th>Select the correct option</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The start of the array.</td>
<td></td>
</tr>
<tr>
<td>The end of the array.</td>
<td>✅</td>
</tr>
<tr>
<td>The mid of the array.</td>
<td></td>
</tr>
<tr>
<td>At least one position before array starting index.</td>
<td></td>
</tr>
</tbody>
</table>
Question # 12 of 30 (Start time: 01:54:32 AM, 18 July 2020)

Which one of the following operations returns and removes top value of the stack?

<table>
<thead>
<tr>
<th>Select the correct option</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pop</strong></td>
</tr>
<tr>
<td><strong>Top</strong></td>
</tr>
<tr>
<td><strong>First</strong></td>
</tr>
</tbody>
</table>
Question # 13 of 30 (Start time: 01:55:15 AM, 18 July 2020)

From Operating System point of view, the recursive function calls are made with the help of ____________.

Select the correct option

- Queue
- Stack (Correct)
- Linked list
- Binary Search Tree
If a node is inserted in outer side of a node in binary search tree then to make it AVL tree, we may have to apply either single rotation or double rotation. Hence, the correct option is "we may have to apply single rotation" or "we may have to apply double rotation".
Question # 16 of 30  (Start time: 01:58:12 AM, 18 July 2020)

There are _______ cases of Rotation in AVL tree.

Select the correct option

- 2
- 3
- 4
- 5
Question # 17 of 30  (Start time: 01:59:02 AM, 18 July 2020)

`copy()` method of List data structure

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>o</td>
<td>Copy first item of list</td>
</tr>
<tr>
<td>✗</td>
<td>Set one list to be a copy of another</td>
</tr>
<tr>
<td>o</td>
<td>Copy last item of list</td>
</tr>
<tr>
<td>o</td>
<td>Copy any item of list</td>
</tr>
</tbody>
</table>
Question # 18 of 30 (Start time: 02:00:02 AM, 18 July 2020)
In the linked list implementation of the stack class, where does the push member function places the new entry on the linked list?

Select the correct option

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td>After all other entries that are greater than the new entry.</td>
</tr>
<tr>
<td><img src="image2.png" alt="Image" /></td>
<td>At the head</td>
</tr>
<tr>
<td><img src="image3.png" alt="Image" /></td>
<td>After all other entries that are smaller than the new entry.</td>
</tr>
<tr>
<td><img src="image4.png" alt="Image" /></td>
<td>At the tail</td>
</tr>
</tbody>
</table>
Question # 19 of 30 (Start time: 02:00:45 AM, 18 July 2020)

Local variables of a function are stored in,

Select the correct option

- Binary Search Tree
- Stack
- Queue
- AVL Tree
Question # 20 of 30 (Start time: 02:01:41 AM, 18 July 2020)

In a list, tail() method of current pointer

Select the correct option

- returns the last element of the "current" pointer
- moves the "current" pointer to the very first element
- moves the "current" pointer to the very last element
- returns the first element of the "current" pointer
Question # 21 of 30  (Start time: 02:02:02 AM, 18 July 2020)

The _______ method of list will position the currentNode and lastCurrentNode at the start of the list.

Select the correct option

- Remove
- Next
- Start
- Back
Question # 22 of 30 ( Start time: 02:02:33 AM, 18 July 2020 )

If we use doubly linked list to implement list, then there is an issue of:

Select the correct option

- next pointer of first node and pre pointer of last node are NULL
- next pointer of first node and next pointer of last node are NULL
- pre pointer of first node and next pointer of last node are NULL
- pre pointer of first node and pre pointer of last node are NULL
Question # 23 of 30  (Start time: 02:03:10 AM, 18 July 2020)

To create a _________ we link the last node with the first node in the list.

<table>
<thead>
<tr>
<th>Select the correct option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double linked list</td>
</tr>
<tr>
<td>Circularly-linked list</td>
</tr>
<tr>
<td>Linked list</td>
</tr>
<tr>
<td>None of the above</td>
</tr>
</tbody>
</table>
Question # 24 of 30  (Start time: 02:03:50 AM, 18 July 2020)

`add(12)` method of linked list class will:

<table>
<thead>
<tr>
<th>Select the correct option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add 12 nodes in linked list</td>
</tr>
<tr>
<td>Add 12 pointers in linked list</td>
</tr>
<tr>
<td>Add 12 as value in linked list</td>
</tr>
<tr>
<td>Add 12 values in the linked list</td>
</tr>
</tbody>
</table>

CONTACT FOR SOLVING QUIZ
Question # 25 of 30  (Start time: 02:04:20 AM, 18 July 2020)

Security of data is the main usage of AVL tree.

Select the correct option

- True
- False
- In some cases
- None of the given
Question # 27 of 30 ( Start time: 02:06:43 AM, 18 July 2020 )

For every process executing, the first part of the memory is for _________ of the program.

Select the correct option

- [ ] Data
- [x] Code
- [ ] Stack
- [ ] Heap
Question # 28 of 30 ( Start time: 02:07:09 AM, 18 July 2020 )

________ of an empty AVL tree is defined to be -1.

Select the correct option

- Length
- Height
- width
- Number
The depth of a complete binary tree is given by

Select the correct option

- $D_n = n \log_2 n$

- $D_n = n \log_2 n + 1$

- $D_n = \log_2 n$

- $D_n = \log_2 (n+1) - 1$
There are four cases of rotation in an _________ tree.

Select the correct option

- ELV
- EVL
- AVL
- ALV
Question # 1 of 30 (Start time: 01:46:34 AM, 18 July 2020)

In a tree, we link the nodes in such a way that it __________ a linear structure.

Select the correct option

- does not remain
- forms
- reverses
- remains
Question # 1 of 30 (Start time: 01:31:57 AM, 17 July 2020)

In the linked list implementation of the stack class, where does the push member function places the new entry on the linked list?

<table>
<thead>
<tr>
<th>Select the correct option</th>
</tr>
</thead>
<tbody>
<tr>
<td>After all other entries that are greater than the new entry.</td>
</tr>
<tr>
<td>At the head</td>
</tr>
<tr>
<td>After all other entries that are smaller than the new entry.</td>
</tr>
<tr>
<td>At the tail</td>
</tr>
</tbody>
</table>
CS301: Grand Quiz

Question # 3 of 30 (Start time: 01:34:25 AM, 17 July 2020)

The next field in the last node in a singly-linked list is set to______.

Select the correct option

- 0
- 1
- NULL
- false
Consider the linked list having data [5, 72, 35, 65, 25] stored in it. While current pointer is pointing to memory location having 72 stored in it. After calling remove() function on the following linked list, current pointer will point to memory location having value? 

Select the correct option

- 6 
- 35 
- 65 
- 25 

CONTACT FOR SOLVING QUIZ
Question # 5 of 30 (Start time: 01:36:20 AM, 17 July 2020)

For a complete binary tree, the depth is calculated as ____________

Select the correct option

- \[ \log_2 (\text{number of nodes} + 1) - 1 \]

- \[ \log_2 (\text{number of nodes} + 1) + 1 \]

- \[ \log_2 (\text{number of nodes} - 1) - 1 \]

- \[ \log_2 (\text{number of nodes} - 1) + 1 \]
**Question # 6 of 30 ( Start time: 01:37:26 AM, 17 July 2020 )**

If we write functions for recursive and non recursive inorder traversal method of BST, what will be the difference between its functions prototypes?

<table>
<thead>
<tr>
<th>Select the correct option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Different return types</td>
</tr>
<tr>
<td>Different function names</td>
</tr>
<tr>
<td>Different arguments list</td>
</tr>
<tr>
<td>Nothing will be different</td>
</tr>
</tbody>
</table>

**Answer:** Nothing will be different
Question # 8 of 30 (Start time: 01:39:59 AM, 17 July 2020)

In singly linked list a node comprises of __________ field/s.

Select the correct option

- One
- Two [Correct]
- Three
- Four
Question # 10 of 30 (Start time: 01:41:51 AM, 17 July 2020)
Doubly Linked List always has _______ NULL pointer/s in a node.

Select the correct option

- One
- Two
- Three
- Four
The lifetime of a transient object cannot exceed that of the application.

Select the correct option:

- True
- False
- In some cases
- None of the given
Question # 12 of 30 (Start time: 01:43:44 AM, 17 July 2020)

A BST generated from the data in ascending order is ____________.

Select the correct option

- Linear
- Nonlinear
- Balanced
- Unsorted
Question # 13 of 30  (Start time: 01:45:05 AM, 17 July 2020)

Linked list is generally considered an example of _____ type of memory location.

Select the correct option

- Static
- Compile time
- Dynamic
- None of given options
Question # 14 of 30 (Start time: 01:45:59 AM, 17 July 2020)

What's wrong with following loop?
while((i < 10) && (i > 24)) {

Select the correct option

- The logical operator && cannot be used in a test condition
- The while loop is an exit-condition loop
- The test condition is always false
- The test condition is always true
Question # 15 of 30  (Start time: 01:46:26 AM, 17 July 2020)

Each node in singly linked list contains

Select the correct option

- One pointer
- Two pointers
- No pointer
- NULL pointer
Question # 16 of 30 (Start time: 01:46:41 AM, 17 July 2020)

Can we store elements with different data types in a single array?

Select the correct option

- Yes
- No
- In some cases
- None of given
The lifetime of a transient object can exceed that of the application which is accessing it.

Select the correct option

- True
- False
- In some cases
- None of the given
Question # 18 of 30 (Start time: 01:47:16 AM, 17 July 2020)

In a complete binary tree, for 25000 nodes the depth will be ______________.

Select the correct option

- 13
- 14
- 15
- 16
Question # 19 of 30 ( Start time: 01:48:42 AM, 17 July 2020 )
We allocate memory dynamically by using ______ operator.

Select the correct option

- this
- new
- increment
- decrement
When an executable program runs, it is loaded in the computer memory and becomes a ________.

Select the correct option

- Thread
- .h file
- Process
- None of the above
**Question # 21 of 30 (Start time: 01:49:52 AM, 17 July 2020)**

A ________ model attempts to model a real-world phenomenon.

**Select the correct option**

- [ ] Physical
- [ ] Logical
- [x] Simulation
- [ ] Conceptual
**Question # 22 of 30 (Start time: 01:50:06 AM, 17 July 2020)**

Which of the following can be used to reverse a string value?

<table>
<thead>
<tr>
<th>Select the correct option</th>
<th>Stack</th>
<th>Queue</th>
<th>Both of these</th>
<th>None of these</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>
Question # 23 of 30 (Start time: 01:50:42 AM, 17 July 2020)

The ______ method of list will position the currentNode and lastCurrentNode at the start of the list.

Select the correct option

- Remove
- Next
- Start (Correct)
- Back

CONTACT FOR SOLVING QUIZ
A template is a function or class that is written with a __________ data type.

Select the correct option

- **Specific**
- **Definite**
- **Generic**
- None of the above.
The function calls are made with the help of ________.

Select the correct option

<table>
<thead>
<tr>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stack</td>
</tr>
<tr>
<td>Heap</td>
</tr>
<tr>
<td>Dynamic memory</td>
</tr>
<tr>
<td>External memory</td>
</tr>
</tbody>
</table>
Question # 28 of 30  (Start time: 01:54:40 AM, 17 July 2020)

The `length()` method of List class is used to:

Select the correct option

- Return the length of the array
- Return the length of the list
- Return the length of empty part of the array
- Return the length of empty part of the list
Question # 29 of 30 (Start time: 01:55:28 AM, 17 July 2020)

New items are added at the _________ of the stack.

Select the correct option

- Bottom
- Middle
- Center
- Top
### is used for Reference variables in C++.

<table>
<thead>
<tr>
<th>Select the correct option</th>
</tr>
</thead>
<tbody>
<tr>
<td>!</td>
</tr>
<tr>
<td>@</td>
</tr>
<tr>
<td>#</td>
</tr>
<tr>
<td>&amp;</td>
</tr>
</tbody>
</table>
Question # 9 of 30 (Start time: 01:40:46 AM, 17 July 2020)

A kind of expressions where the operator is present between two operands called __________ expressions.

Select the correct option

- Infix
- Postfix
- Prefix
- None of the above

MORE WILL BE SEND TOMORROW

Grand Quiz Solved 100 % Confirm
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