



Grand Quiz Spring 2021

Subject Code CS301 lecture 1 to 22

Solved by Riz Mughal

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Sialkot
Punjab, Pakistan



Rizwanqadeer848@gmail.com



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RIZ MUGHAL (SQA ENGINEER)



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Question # 1 of 30 (Start time: 09:00:17 AM, 22 June 2021)

What will be the postfix expression of following infix expression?
 $D+E*F/G$

Select the correct option

- | | |
|----------------------------------|-----------|
| <input type="radio"/> | $DE+FG*/$ |
| <input type="radio"/> | $DE+F*G/$ |
| <input checked="" type="radio"/> | $DEF*G/+$ |
| <input type="radio"/> | $DE*F/G+$ |

Question # 2 of 30 (Start time: 09:00:39 AM, 22 June 2021)

Josephus problem is resolved by the implementation of_____.

Select the correct option

- | | |
|----------------------------------|----------------------|
| <input type="radio"/> | Stack |
| <input type="radio"/> | List |
| <input type="radio"/> | Queue |
| <input checked="" type="radio"/> | Circular linked list |

Question # 4 of 30 (Start time: 09:02:32 AM, 22 June 2021)

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

Select the correct option

- | | |
|----------------------------------|----|
| <input type="radio"/> | 16 |
| <input type="radio"/> | 12 |
| <input checked="" type="radio"/> | 14 |
| <input type="radio"/> | 15 |

Question # 5 of 30 (**Start time: 09:02:52 AM, 22 June 2021**)

We allocate memory dynamically by using _____ operator.

Select the correct option

- | | |
|----------------------------------|-----------|
| <input type="radio"/> | increment |
| <input type="radio"/> | decrement |
| <input type="radio"/> | this |
| <input checked="" type="radio"/> | new |

Question # 6 of 30 (Start time: 09:03:09 AM, 22 June 2021)

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

- | | |
|----------------------------------|-------------------------|
| <input type="radio"/> | after inserting node 23 |
| <input checked="" type="radio"/> | after inserting node 25 |
| <input type="radio"/> | after inserting node 12 |
| <input type="radio"/> | after inserting node 10 |
- 

Question # 7 of 30 (Start time: 09:03:25 AM, 22 June 2021)

We can make a lexicographic order of characters based on their _____.

Select the correct option

- Memory addresses
- ASCII values
- Binary digits
- Random choice

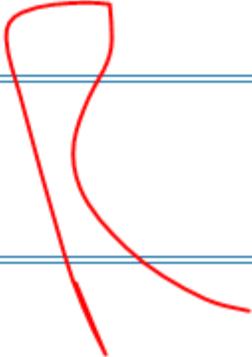


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Question # 8 of 30 (Start time: 09:03:41 AM, 22 June 2021)

Generally there is/are _____ case(s) to delete a node from BST.

Select the correct option

- | | |
|----------------------------------|---|
| <input type="radio"/> | 4 |
| <input type="radio"/> | 1 |
| <input checked="" type="radio"/> | 3 |
| <input type="radio"/> | 2 |
- 

Question # 9 of 30 (Start time: 09:03:55 AM, 22 June 2021)

Which of the following function don't belongs to the stack class?

Select the correct option

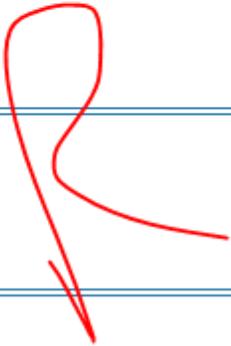
- | | |
|----------------------------------|---------|
| <input type="radio"/> | top() |
| <input type="radio"/> | pop() |
| <input checked="" type="radio"/> | crash() |
| <input type="radio"/> | push() |
- 

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Question # 10 of 30 (Start time: 09:04:11 AM, 22 June 2021)

Making the tree unbalanced, it violates the _____ rule.

Select the correct option

- | | |
|----------------------------------|-------------|
| <input type="radio"/> | stack |
| <input type="radio"/> | queue |
| <input type="radio"/> | linked list |
| <input checked="" type="radio"/> | AVL |
- 

Question # 11 of 30 (Start time: 09:04:27 AM, 22 June 2021)

Tot

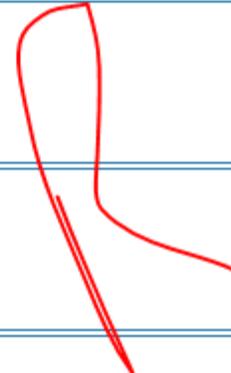
Analyze the given code carefully and choose the statement which will be used if we want to set 7 as the value of root ?

```
int x [] = {14,15,4,9,7,18,3,5,16,4,20,17};
```

```
TreeNode * root = new TreeNode();
```

Select the correct option

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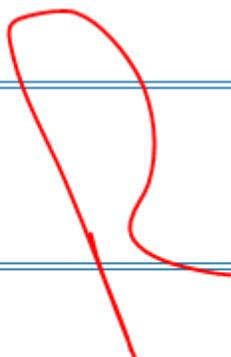
- | | |
|----------------------------------|---|
| <input type="radio"/> | <code>root->setInfo(&x);</code> |
| <input type="radio"/> | <code>root->setInfo(&x[0]);</code> |
| <input checked="" type="radio"/> | <code>root->setInfo(&x[4]);</code> |
| <input type="radio"/> | <code>root->setInfo(x);</code> |
- 

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Question # 12 of 30 (Start time: 09:04:56 AM, 22 June 2021)

STL is a _____ that is a part of the official standard of C++.

Select the correct option

- | | |
|----------------------------------|----------------|
| <input type="radio"/> | .cpp file |
| <input type="radio"/> | .h file |
| <input type="radio"/> | C program file |
| <input checked="" type="radio"/> | Library |
- 

Question # 13 of 30 (Start time: 09:05:13 AM, 22 June 2021)

length() method of List class is used to:

Select the correct option

- | | |
|----------------------------------|--|
| <input checked="" type="radio"/> | Return the length of the list |
| <input type="radio"/> | Return the length of empty part of the list |
| <input type="radio"/> | Return the length of the array |
| <input type="radio"/> | Return the length of empty part of the array |
- 

Question # 14 of 30 (Start time: 09:05:28 AM, 22 June 2021)

Suppose we have the following values to be inserted in constructing AVL tree,
10,13,15,5,7,8
Tell when first rotation will take place.

Select the correct option

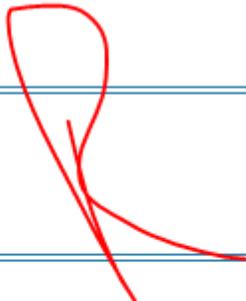
- | | |
|----------------------------------|-------------------------|
| <input checked="" type="radio"/> | after inserting node 15 |
| <input type="radio"/> | after inserting node 5 |
| <input type="radio"/> | after inserting node 7 |
| <input type="radio"/> | after inserting node 13 |
- 

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Question # 15 of 30 (Start time: 09:05:41 AM, 22 June 2021)

Which of the following operation returns the contents of a binary tree node?

Select the correct option

- | | |
|----------------------------------|------------|
| <input type="radio"/> | isLeaf(p) |
| <input type="radio"/> | brother(p) |
| <input type="radio"/> | parent(p) |
| <input checked="" type="radio"/> | info(p) |
- 

Question # 16 of 30 (Start time: 09:05:54 AM, 22 June 2021)

The first statement in the given code is called as:

```
class BinarySearchTree ;  
class BinaryNode{  
friend class BinarySearchTree;  
};
```

Select the correct option

- | | |
|----------------------------------|------------------------|
| <input type="radio"/> | Binary Declaration |
| <input type="radio"/> | Pre Class Declaration |
| <input checked="" type="radio"/> | Forward Declaration |
| <input type="radio"/> | Post Class Declaration |

Question # 17 of 30 (Start time: 09:06:11 AM, 22 June 2021)

Sub-tree of binary search tree should be _____.

Select the correct option

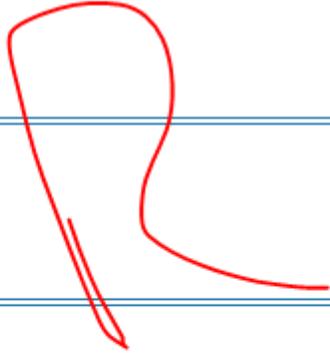
- | | |
|----------------------------------|----------------------|
| <input checked="" type="radio"/> | Binary search tree |
| <input type="radio"/> | Binary tree |
| <input type="radio"/> | Strictly binary tree |
| <input type="radio"/> | Complete binary tree |
- 

Question # 18 of 30 (Start time: 09:06:27 AM, 22 June 2021)

To

At the time while evaluating an expression, if we want to give higher precedence to lower precedence operator, we used _____

Select the correct option

- | | |
|----------------------------------|-------------|
| <input type="radio"/> | Dots |
| <input checked="" type="radio"/> | Parenthesis |
| <input type="radio"/> | Comas |
| <input type="radio"/> | Operands |
- 

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Question # 19 of 30 (Start time: 09:06:41 AM, 22 June 2021)

Which of the following is not a form of expression?

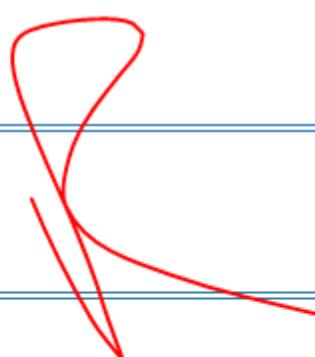
Select the correct option

- | | |
|----------------------------------|---------|
| <input type="radio"/> | Postfix |
| <input type="radio"/> | Infix |
| <input type="radio"/> | Prefix |
| <input checked="" type="radio"/> | Pastfix |
- 

Question # 20 of 30 (Start time: 09:06:55 AM, 22 June 2021)

Leaf node of binary search tree contains _____

Select the correct option

- | | |
|----------------------------------|---------------------|
| <input checked="" type="radio"/> | Two Null pointers |
| <input type="radio"/> | One Null pointer |
| <input type="radio"/> | No Null pointer |
| <input type="radio"/> | Three Null pointers |
- 

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Question # 21 of 30 (Start time: 09:07:09 AM, 22 June 2021)

Which of the following operation is used to get an element from the top of stack?

Select the correct option

- | | |
|----------------------------------|--------|
| <input type="radio"/> | get() |
| <input type="radio"/> | pop() |
| <input type="radio"/> | push() |
| <input checked="" type="radio"/> | top() |
- 

Question # 22 of 30 (Start time: 09:07:24 AM, 22 June 2021)

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

Select the correct option

<input type="radio"/>	First
<input type="radio"/>	Top
<input checked="" type="radio"/>	Pop
<input type="radio"/>	Push



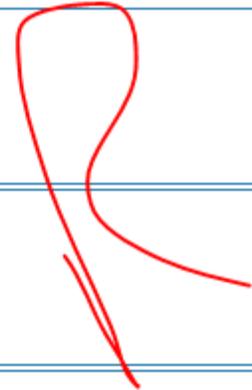
Question # 23 of 30 (Start time: 09:07:39 AM, 22 June 2021)

Total

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.

Select the correct option

<input checked="" type="radio"/>	1
<input type="radio"/>	3
<input type="radio"/>	2
<input type="radio"/>	4



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Question # 24 of 30 (Start time: 09:07:55 AM, 22 June 2021)

_____ is used for Reference variables in C++.

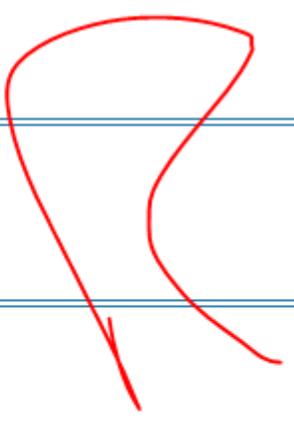
Select the correct option

- | | |
|----------------------------------|---|
| <input type="radio"/> | # |
| <input checked="" type="radio"/> | & |
| <input type="radio"/> | @ |
| <input type="radio"/> | ! |

Question # 25 of 30 (Start time: 09:08:10 AM, 22 June 2021)

If the elements are "3","5","1","6", in which order they will be removed from the Queue one by one?

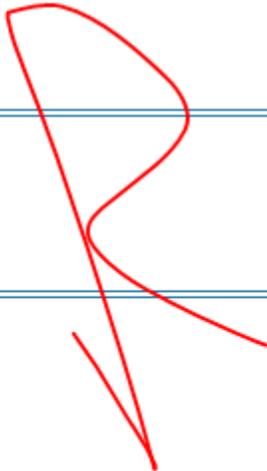
Select the correct option

- | | |
|----------------------------------|---------|
| <input type="radio"/> | 3 1 5 6 |
| <input type="radio"/> | 6 1 5 3 |
| <input type="radio"/> | 6 5 1 3 |
| <input checked="" type="radio"/> | 3 5 1 6 |
- 

Question # 26 of 30 (Start time: 09:08:25 AM, 22 June 2021)

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

Select the correct option

- | | |
|----------------------------------|---|
| <input type="radio"/> | pre pointer of first node and pre pointer of last node are NULL |
| <input type="radio"/> | next pointer of first node and pre pointer of last node are NULL |
| <input type="radio"/> | next pointer of first node and next pointer of last node are NULL |
| <input checked="" type="radio"/> | pre pointer of first node and next pointer of last node are NULL |
- 

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Question # 27 of 30 (Start time: 09:08:44 AM, 22 June 2021)

To search an element in ALV tree, it takes maximum $1.88 \log_2 n$ time.

Select the correct option

- | | |
|----------------------------------|---|
| <input checked="" type="radio"/> | False |
| <input type="radio"/> | Searching cannot be performed in AVL tree |
| <input type="radio"/> | In some cases |
| <input type="radio"/> | True |
- 

Question # 28 of 30 (Start time: 09:08:57 AM, 22 June 2021)

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

Select the correct option

<input type="radio"/>	222
<input checked="" type="radio"/>	5
<input type="radio"/>	4
<input type="radio"/>	48

