Today's paper
MCQ's was from past papers

1. What is the difference between call by value and call by reference? 2
2. What is a pre-order traversal? 2
3. Redraw the given tree and write balance of it. 2
4. A code was given and we have to tell what the recursive function is doing. 3
5. 10 integer values was given and we have to draw a binary search tree. Then delete a node 65 from it and redraw the tree. 5
6. Values was given and we have to draw AVL tree after balancing it. 5

Today Paper
MCQs: 60% from past papers
Subjective:
i) queue is a linear data structure. discuss
ii) AVL Rotation
iii) insert a new node in following binary tree
iv) insert 12 in following AVL tree
v) pre-order traversal? post order traversal?
vi)correct the following data structure code.

Waqar Azeem has sent you a message on Virtual University of Pakistan

Subject: My cs 301 paper

(My todays paper CS301 data structure)

Short questions:

Write transversal types of BST.
How can dangling reference problem be avoided?
Draw complete binary tree containing four nodes and three levels.
What is the output of the following program?

```
#include

#include

Int valMinus3(intOrgval)
```

What is the output of the following program?

```
#include

#include

Int valMinus1(intOrgval)
```

Today's paper

MCQ's was from past papersWhat is the difference between call by value and call by reference? 2

1. What is a pre-order traversal? 2
2. Redraw the given tree and write balance of it. 2
3. A code was given and we have to tell what the recursive function is doing. 3
4. 10 integer values was given and we have to draw a binary search tree. Then delete a node
5. 65 from it and redraw the tree. 5
6. Values was given and we have to draw AVL tree after balancing it. 5

MCQs: 60% from past papers
Subjective:
i) queue is a linear data structure. discuss
ii) AVL Rotation
iii) insert a new node in following binary tree
iv) insert 12 in following AVL tree
v) pre-order traversal? post order traversal?
vi)correct the following data structure code.

MCQ's was from past papers

1. What is the difference between call by value and call by reference? 2
2. What is a pre-order traversal? 2
3. Redraw the given tree and write balance of it. 2

4. A code was given and we have to tell what the recursive function is doing. 3
5. 10 integer values was given and we have to draw a binary search tree. Then delete a node 65 from it and redraw the tree. 5
6. Values was given and we have to draw AVL tree after balancing it. 5

Complete paper was from old papers discussed at this site and two new questions as follows.
Note: dono questions bht time laity hain please solve them for paractice
1.Question for 5 marks make BST for th following :- final BST is required.
100,70,110,60,80,50,120,150,85,87
2. provide AVL finaly for the following inorder and post order elements
Inorder :- LCADFZ
Post order :- LCDZFA

CS301(Data Structure)
My Todays Paper

Most of the MCQs were from the binary search tree and Queue and the concept of synatx current node , next current nodes

Q1- Write down the functions of Binary search tree
Q2- Draw an AVL Tree of 17,18,5,15,7 and also do rotations to balance it if necessary.
Q3-In which case the double rotations of AVL is applied
Q4-Make a BST of the following:
2, 4,5,8,14,35,9,
Q5- Delete following nodes from binary tree :

29,35,75,60

Cs301 Subjective

1. What is function of length () method in the Aueue
2. Explain the two cases in which we apply double roation in An Avl tree
3. how can we perform level -order travessal on a tree
4. How can the dangling reference problem be avoided
supose we have these value 16,27,23,10,,38

Q.21: - How AVL is different from Binary Search Tree?
Q.22: - What the maximum no of comparisons we have to perform during insertion in BST?
Q.23: - We have a list of 1, 2, 3, 4 numbers. Their inorder traversal is 2, 1, 4, 3 and post order is 2, 4, 3, 1. What will be its root at level 0.
(a). 1 (b) 2 © 3 (d) 4 (e) none

Q.24: -(a). Write C++ statement that declares a valid reference of int i.
(b). What are the benefits of reference?
Q.25: - There is a BST, who root is 70 its left 65 right 74, left of 65 is 50 & right 67, left of 50 is null & right is 57, & back left of 67 is null & right 69 and right of root 70 is 74, left of 74 is 72 & right is 77, left of 72 is null & right 73 and back to 77, left of 77 is null and right is 80.
I wrote all this because tree is not made by me...
write its Prefix and infix traversal.

Q.26: - write the details of given statements.
(a). int x;
int * y = & x;
(b). int x;
int &y = x;
©. int x;
int y = x;

---

2 questions of 5 marks

a) a BST was given, the question is to do pre order and post order traversal

b) an AVL tree was given, the question was to find the balance factor of each noTe

1. What is function of length () method in the Aueue
2. Explain the two cases in which we apply double roation in An Avl tree
3. how can we perform level -order travessal on a tree
4. How can the dangling reference problem be avoided
supose we have these value 16,27,23,10,,38

Q.21: - How AVL is different from Binary Search Tree?
Q.22: - What the maximum no of comparisons we have to perform during insertion in BST?
Q.23: - We have a list of 1, 2, 3, 4 numbers. Their inorder traversal is 2, 1, 4, 3 and post order is 2, 4, 3, 1. What will be its

root at level 0.
(a). 1 (b) 2 © 3 (d) 4 (e) none

Q.24: -(a). Write C++ statement that declares a valid reference of int i.
(b). What are the benefits of reference?
Q.25: - There is a BST, who root is 70 its left 65 right 74, left of 65 is 50 & right 67, left of 50 is null & right is 57, & Paper copy from vu thirty nine dot com back left of 67 is null & right 69 and right of root 70 is 74, left of 74 is 72 & right is 77, left of 72 is null & right 73 and back to 77, left of 77 is null and right is 80.
I wrote all this because tree is not made by me...
write its Prefix and infix traversal.

Q.26: - write the details of given statements.
(a). int x;
int * y = & x;
(b). int x;
int &y = x;
©. int x;
int y = x;

These were the detailed questions of todays 12-05-2011 CS301 papers.

2 questions of 3 marks

1. What is function of length () method in the Queue
2. Explain the two cases in which we apply double roation in an AVL tree

---

How AVL is different from Binary Search Tree?

A BST was given, the question is to do pre-order and in-order traversal.

The data of the problem is of 2GB and the hard disk is of 1GB capacity, to solve this problem we should
- ► Use better data structures
- ► Increase the hard disk space
- ► Use the better algorithm
- ► Use as much data as we can store on the hard disk

Four statements about trees are below. Three of them are correct. Which one is INCORRECT?
- ► Trees are recursively defined multi-dimensional data structures
- ► The order of a tree indicates a maximum number of childen allowed at each node of the tree
- ► A search tree is a special type of tree where all values (i.e. keys) are ordered
- ► If Tree1's size is greater than Tree2's size, then the height of Tree1 must also be greater than Tree2's height.

Tree data structure is a _____
a. Linear
b. Non Linear
c. Circular
d. None of Above

Define...
Reference Variable
Dangling Reference
Const keyword

What is tree?

CS301 Solved Current paper

MCQ's was from past papers
What is the difference between call by value and call by reference? 2
Answer:
Call by value:
In case of call by value, a copy of object is made and placed at
the time of function calling in the activation record. Here the copy constructor is used
to make a copy of the object. If we don't want the function to change the parameter
Without going for the use of time, memory creating and storing an entire copy of, it is
Advisable to use the reference parameter as const.
Call by reference:
By using the references, we are not making the copy. Moreover, with the const keyword, the function cannot change the object. The calling function has read only access to this object. It can use this object in the computation but can not change it.

What is a pre-order traversal? 2
Answer:
(L, N, R)
(N, L, R)
,N)(R, L
(L, R, N)
(N, R, L)
(R, N, L)
When We select the following three permutations from the
above six. The first of these three is (N, L, R), also called as preorder traversal

Redraw the given tree and write balance of it. 2
Chapter : 19 Page no 207
A code was given and we have to tell what the recursive function is doing. 3
Page : 149
Chapter : 14

10 integer values was given and we have to draw a binary search tree. Then delete a node 65 from it and redraw the tree. 5
Chapter : 12
Values were given and we have to draw AVL tree after balancing it. 5
Chapter : 19 page no 207
i) Queue is a linear data structure. Discuss
A queue is a linear data structure into which items can only be inserted at one end and removed from the other. In contrast to the stack, which is a LIFO (Last In First Out) structure, a queue is a FIFO (First In First Out) structure.
ii) AVL Rotation
Page no 220 +221 chapter no 20

iii) Insert 12 in following AVL tree
Page no :219 chapter no 20

Subject: My cs 301 paper

(My todays paper CS301 data structure)

Short questions:

Write transversal types of BST.
ANS: Preorder, in order and post order traversal

How can dangling reference problem be avoided?
ANS:
To avoid dangling reference, don't return the reference of a local variable (transient) from a function.

Draw complete binary tree containing four nodes and three levels.
Chapter no 11 page no 122

What is the output of the following program?

#include

#include

Int valMinus3(intOrgval)
Answer:

Type& findMin( ) const;
This method is used to find the minimum data value in the binary tree.
This will found 3 in binary tree

What is the output of the following program?

#include

#include

Int valMinus1(intOrgval)
Answer:
This will found 1 in binary tree.

Current CS301; MID Term Paper; 08~19 Dec, 2012; Fall-2012
MCQ's was from past papersWhat is the difference between call by value and call by reference? 2

1. What is a pre-order traversal? 2
2. Redraw the given tree and write balance of it. 2
3. A code was given and we have to tell what the recursive function is doing. 3
4. 10 integer values was given and we have to draw a binary search tree. Then delete a node
5. 65 from it and redraw the tree. 5
6. Values was given and we have to draw AVL tree after balancing it. 5

MCQs: 60% from past papers

Subjective:
i) queue is a linear data structure. discuss
ii) AVL Rotation
iii) insert a new node in following binary tree
iv) insert 12 in following AVL tree
v) pre-order traversal? post order traversal?
vi)correct the following data structure code.

MCQ's was from past papers

1. What is the difference between call by value and call by reference? 2
2. What is a pre-order traversal? 2
3. Redraw the given tree and write balance of it. 2

1. A code was given and we have to tell what the recursive function is doing. 3
2. 10 integer values was given and we have to draw a binary search tree. Then delete a node 65 from it and redraw the tree. 5
3. Values was given and we have to draw AVL tree after balancing it. 5

CS301 MID TERM Current Papers Dec.-2012 Fall
MCQ's was from past papers

What is the difference between call by value and call by reference? 2
What is a pre-order traversal? 2
Redraw the given tree and write balance of it. 2

A code was given and we have to tell what the recursive function is doing. 3
10 integer values was given and we have to draw a binary search tree. Then delete a node 65 from it and redraw the tree. 5
Values was given and we have to draw AVL tree after balancing it. 5

CS301 MID TERM Current Papers Dec.-2012 Fall
MCQs: 60% from past papers
Subjective:
i) queue is a linear data structure. discuss
ii) AVL Rotation
iii) insert a new node in following binary tree
iv) insert 12 in following AVL tree
v) pre-order traversal? post order traversal?
vi)correct the following data structure code.

CS301 MID TERM Current Papers Dec.-2012 Fall
MCQ's was from past papersWhat is the difference between call by value and call by reference? 2
What is a pre-order traversal? 2
Redraw the given tree and write balance of it. 2
A code was given and we have to tell what the recursive function is doing. 3
10 integer values was given and we have to draw a binary search tree. Then delete a node

65 from it and redraw the tree. 5
Values was given and we have to draw AVL tree after balancing it. 5

---

my cs301 paper
Mcqs was from past paper

- How to calculate height of tree
- Construct binary tree with values 39,20,22,33,16,35,18 and then delete 22
- Delete node from bst
- Benefit and syntax of reference
- Dif between call by reference and value

Hello friends
MCQs were from past papers almost 70%. 2 marks questions are:
How we can delete a node having two childs?
Suppose x and y are int variable then write two statements which show two reference variables a and b referencing x and y.
3 marks:
height and balance of node.
code tha uski output btani thi. tree se e tha.
5 marks:
AVL tree bnana tha given values se
program tha bnene ko

---

write the details of given statements.
(a). int x;
int * y = & x;
(b). int x;
int &y = x;
(c). int x;
int y = x;

1.Suppose x and y are int variable then write two statements which show two reference variables a and b referencing x and y.
2.Benefit and syntax of reference
3.height and balance of node.
is ka answer bata do koi

AOA
fellows
today paper is
(1) deleting node 3 marks
(2) maximum nodes of BST jo formula lagta ha woh wala tha .....main nay to log2(n+1)-1 likha ha 2marks
(3) recursive ka program likhna tha 5 marks
(4) node of move karna tha phir us ko variable assign karna tha yh program tha 5 marks
(5) reference ki example do or us kay benifit likho 3marks
baki old paper main sy msq 5 aya hun gay is dafa unho nay english langue main zara changing ki ha word different use katy hain

Best of luck yaro

(a). int x; ....declare a variable of int data type
int * y = & x;....declare a pointer that stores the reference of variable x
(b). int x;.......same..
int &y = x;.......declare a reference variable and initialize with x..means x and y have snynames
(c). int x;....same...
int y = x....y evaluate to x value ..

---

salam
aj ma na cs301 ka paper diya sub duwa kerna achya marks a jain plzzzzzzzzzzzzzz.ameeen
my to days cs301 papper
5q are related to BST , AVL TREE.and remove node from tree Qs.
ak Q ma code diya hua tha us ki output batni thi.
and MCQS are from pastpapers.

---

20 MCQS, 2 questions= 2, 2 marks, 2 questions = 3, 3 marks, 2 questions = 5,5 marks mostly mcqs from past papers (jis main reference bhi diya howa hai mcqs ka).
SUbjective portion :
Q: height of a tree, balance of a node (3 marks)
Q: how we degenerate a binary search tree? (3 marks)
Q: binary search tree given tha aur mjy (i) post order (ii) level order batana tha bss (5 marks)
Q: aur aik question tha k values guven thee tau uski diagram banani thee AVL tree main just diagram like values 10,13,16,17,60,70,80,90,95,97 etc
Q: delete a node leaf in a tree ,, then in BST how many pointers are used to NULL it?? is tarha kar k kuch question tha (2 marks)
Q: aur aik question aisa tha jis main diargram given thee aur batan tha k yeh konsa tree hai for example simple tree, binary tree, bst, AVL, strictly binary tree etc aur issi ka aik part aur tha k nodes bhi batani thee k total nodes kitni use ho rahi hain diagram main okay 2 marks (1 for tree name and 1 for total nodes?? clear ho gaya sab ok enjoy karo

---

aj mera paper tha jis me 20 mcq aeee the
15 mcqs past papers me the
5 conceptual the (new)
Q:-queue discus 2
Q:-diffiernce b/w avl and bst insertion node 2
Q:-avl tee 3
Q:-PROGRAM COMMENT ON IT 5
Q:-LINK LIST TO BST TREE BANA THA 5
....
AK BAT YAD RAKHE SB BOOK KO ZAROOOR PHAR K JAEEEE
ONLY PAPER PR RAHE TO 20 NUMBERS SE OPER TO NAI ATE AGR BOOK PARI TO 35 TK A JAE GE
;;;
BUST OF LUCK

---

my today paper
total question 26 20 mcq 6 subjective mcq from past paper moazz file sa or wording change hai is dafa
q #1. queue is linear data structure. how? 2

q#2. how insertion of AVLTree is different for insertion of binary search Tree? 2

My today paper was quite easy. Most of the MCQ's are from past papers and related to linked list, binary trees, avl trees.
In short questions i have these one's :
Draw a binary tree of level 2
How we can delete a node with two Childs in a binary search tree using its right sub tree.
Answer:- Page 263 The node to be deleted has either left child (subtree) or right child (subtree).In this case we bypass the node in such a way that we find the inorder successor of this node and then link the parent of the node to be deleted to this successor node. Thus the node was deleted.

8 Linked list nodes are given and we have to draw it's binary search tree diagram.(5 Marks)
One program output to be shown.
One program implementation code has to be written.(5 Marks)

---

right side insertion in AVL tree.(2)
why we use closing function for recursive.(2)
BST dia tha and scnd step py us main se eh perent 30 ko delet krna tha nd batna tha kh ic ki jgha konsa node ya leaf place kre ga...(3)
program code dia tha 5 marks ka error btana tha and comment kerna tha(5)
49 30 38 36 45 28 inhyn BST main change kerna tha...(5)
ek bhool gya.... 15 mcqs past papers se thy

My today paper
Define Level?
Define AVL?
AVL ka aik question ta jis ma Node ko delet kr k us ke jaga pr ak nya Node insert krna ta
AVL rotation ka aik chota sa question ta jis ma balance krna ta
Code given ta ju tree k bry ma ta k ye tree kis trah sy bny ge(5)
Pre order and inorder lkna ta Tree given te(5)
10 MCQs Moaz file sy ta aur baki new ta

Today's Paper
QNo.1 There was a question to draw Complete Binary Tree of level 2 (2)
QNo.2 What is the difference in insertion and deletion of AVL Tree and Binary Search Tree (2)
QNo.3 There was a Given diagram of AVL Tree which was not correct. we had to correct the diagam according to rule (3)
QNo.4 There was a question in which we had to find the mistakes in the given code (5)
QNo.5 There was a Tree given in which we had to traverse the given elements in preorder and Inorder. (5)

QNo.6 There was a program to show output of recrucive (3)

MY TODAYS PAPER CS301 - 14 dec 2012 at 11.00 am

1. **How right rotation performed. (2 marks)**
ANS: In a binary search tree, pushing a node N down and to the right to balance the tree. N's left child replaces N, and the left child's right child becomes N's left child.

2. To set balance of leaves in binary tree how many pointer(s) used to set NULL. (2 marks)
ANS: One pointer is use for null.
3. Make a complete binary tree using 5 nodes. (3 marks)
ANS: suppose the 5 node tree is like this

or
These are not complete binary trees because in 1st tree left and right subtrees has only right child node but not left child node in both sub trees. In 2nd tree only right subtrees has both right and left leaf nodes but left subtrees has nothing. A complete binary tree of depth d is the strictly binary tree all of whose leaves are at level d.

4. A single rotate apply on the following binary tree what is the resultant tree. (3 marks)
ANS: See handouts for single rotation (page 230)

5. Tree was given what is the order of the nodes visited (3 marks)
a) Pre-order traversal
b) in-order traversal
ANS:
a) Pre-order traversal = (Root, L, R) = A, B, D, C, E, G, F, H, I
b) in-order traversal = (L, Root, R) = B, C, D, A, E, F, H, G, I
(Its not the exact tree that was in paper)

6. Insert the given nodes 21, 23, 28, 78, 38, 75, 66 into empty AVL tree and show what will happened no need to show all steps only final AVL is required.

ANS: level of left subtree is 2 and level of right sub tree is 3
so the balance of the tree= (2-3) = -1 which prove that it is a AVL tree.

My today paper cs301
Ya Allah jo students hardwork krr rhay han un k mahnet ka ka ajjer zror dana besuk to mahnet ka ajjer dane wala ha.Aamean
Q:-my one question about AVL Tree.draw it and mention also about its level? marks 5
Q:-1 question about depth d of the tree? 2 marks
Q:-1 question was about degenerate Binary search tree.3 marks
Q:-1 program was given which was about find out errors and correction of those errors? marks 5
my only 5 mcqs was from past papers of Mohaaz's solved files.
Best of luck for your exams
remember me also in your prayers.

---

aj ma na cs301 ka paper diya sub duwa kerna achya marks a jain plzzzzzzzzzzzzzz.ameeen
my to days cs301 papper
5q are related to BST , AVL TREE.and remove node from tree Qs.
ak Q ma code diya hua tha us ki output batni thi.
and MCQS are from pastpapers.

---

(1) deleting node 3 marks
(2) maximum nodes of BST jo formula lagta ha woh wala tha .....main nay to log2(n+1)-1 likha ha 2marks
(3) recursive ka program likhna tha 5 marks
(4) node of move karna tha phir us ko variable assign karna tha yh program tha 5 marks
(5) reference ki example do or us kay benifit likho 3marks

My today paper was quite easy. Most of the MCQ's are from past papers and related to linked list, binary trees, avl trees.
In short questions i have these one's :
Draw a binary tree of level 2
How we can delete a node with two Childs in a binary search tree using its right sub tree.
Answer:- Page 263 The node to be deleted has either left child (subtree) or right child (subtree).In this case we bypass the node in such a way that we find the inorder successor of this node and then link the parent of the node to be deleted to this successor node. Thus the node was deleted.

8 Linked list nodes are given and we have to draw it's binary search tree diagram.(5 Marks)

One program output to be shown.

One program implementation code has to be written.(5 Marks)

---

(1) deleting node (3 marks)
Deletion of a node is considerably more complex than the insertion of a node. It is complex in the sense that we may have to do more than one rotations to rebalance the tree after deleting a node.
(2) maximum nodes of BST (2marks)
It was witnessed that if we have a complete binary tree with numbers of nodes, the depth (d) of the tree can be found by the following equation:
$d = \log_2(n + 1) - 1$
(3) recursive ka program likhna tha (5 marks)
Recursion is supported in C++ and other languages. Recursion means that a function can call itself.

Factorial
A classic example of a recursive procedure is the function used to calculate the factorialof a natural number:
function factorial is:
input: integer *n* such that *n* >= 0
output: [*n* × (*n*-1) × (*n*-2) × … × 1]

1. if *n* is 0, **return** 1
2. otherwise, **return** [*n* × factorial(*n*-1)]

end factorial
Below are three examples of recursive functions. Calculate the factorial of a positive integer

```
int factorial(int number)
{
        if (number < 0)
        {
                cout  "\nError - negative argument to factorial\n";
                exit(1);
        }
        else if (number == 0)
                return 1;
        else
                return (number * factorial(number - 1));
```

```
}
```

As a second example, here's a function which raises its first argument (of type "float") to the power of its second (non-negative integer) argument:

```
float raised_to_power(float number, int power)
{
        if (power < 0)
        {
                cout  "\nError - can't raise to a negative power\n";
                exit(1);
        }
        else if (power == 0)
                return (1.0);
        else
                return (number * raised_to_power(number, power - 1));
}
```

In both cases, care has been taken that a call to the function will not cause an "infinite loop" - i.e. that the arguments to the functions will either cause the program to exit with an error message, or are such that the series of recursive calls will eventually terminate with a base case.
The third example recursive function sums the first n elements of an integer array "a[]".

```
int sum_of(int a[], int n)
{
        if (n < 1 || n > MAXIMUM_NO_OF_ELEMENTS)
        {
                cout  "\nError - can only sum 1 to ";
                cout  MAXIMUM_NO_OF_ELEMENTS  " elements\n";
                exit(1);
        }
        else if (n == 1)
                return a[0];
        else
                return (a[n-1] + sum_of(a,n-1));
}
```

Link from where I take these examples

---

jo question solve hoay maine kar deay. in k elawa abi tak ki discussion mai jo question b share hoay wo ye hyn... sub apny 2, 3 question solve kar diya karain. it will helpfull for others. jo dosroo k liay aasania paida karta ha ALLAH us k liay aasania paida karta ha. GOD Bless you all.
(4) Node of move karna tha phir us ko variable assign karna tha yh program tha 5 marks
(5) Reference ki example do or us kay benefit likho 3marks

Which traversal cannot be done using recursion?
ek or program tha us me correction krne ko bola

8 Linked list nodes are given and we have to draw it's binary search tree diagram.(5 Marks)
One program output to be shown.
One program implementation code has to be written.(5 Marks)

Right side insertion in AVL tree.(2)
Why we use closing function for recursive.(2)
BST dia tha and scnd step py us main se eh parent 30 ko delet krna tha nd batna tha k is ki jgha konsa node ya leaf place kre ga...(3)

Program code dia tha 5 marks ka error btana tha and comment kerna tha(5)

1 program ki output btani the 03 marks
aur 1 program main error remove karna tha 05 marks

QNo.3 There was a given diagram of AVL Tree which was not correct. We had to correct the diagram according to rule? (3)
QNo.4 There was a question in which we had to find the mistakes in the given code? (5)
QNo.5 There was a Tree given in which we had to traverse the given elements in preorder and Inorder? (5)

3.we have a class Binary_Tree having float variables v1,v2,v3 and another object bT_obj. write statement to access v1,v2,v3 using object bT_obj
4.write In-order pre-order of given tree
5.write Recursive function about some leaf NOdes..:)

Q.No21
How can we delete a node with two children is a binary search tree by using its right sub-tree?
Q.No22
What are the maximum of comparisons we have to perform during impetration in BST?
Q.No23
Consider the following statement
Employee *emp= newEmployee();
/* Employee in a class name */
This statement is defining in a function the object “emp” will destroy when the function exestuation ends.
Is it True or False? Explain
Q.No2 4
Explain what is recursive functions is doing?
Void BianrySearchTree : : mystery (Node*temp){
If(temp!=NULL)
{
Cout(temp->get()+temp->get())}
mystery(temp->get leftChild())
mystery(temp->get RightChild())
Q.No25
Perform the Preorder and Inorder traversal on the tree given between and show the result in both conditions.
Q.No26
Consider the following unbalanced tree, perform double relation the make it a balanced .All tree you are balanced to show both step.

My today CS301 paper first session was consisting of more than 80% on tree like BST and AVL. MCQ's were almost new 4-5 MCQ's were of post order expression, 2-3 linked list and other were related to tree.
If any body has taken his/her papers (MCS 2nd) of any subject please share as we have to take exam for other five papers too.

---

past papers meiin sy ik ya 2 MCQ's ae thy baqi saaary new thy
paper mein jo subjective question thy wo ye hein
1)step by step method of making AVL tree

2) tree dya hwa tha r us ka post order tree bnana tha
3)right rotation krni thi tree ki
4)ik AVL tree dya hwa tha r us ko BST mein convert krna tha
5)const int & g(const int& a) ye line kya kry gi?
6) BST tree mein sy agr koi element search krna ho tou ktni bt comparison krna prta hai
ye tha mera paper
tree tree tree tree r bs tree

Mcq's were mostly from past papers
subjective was like
Q USE THIS VALUE TO MAKE AVL TREE 14, 9, 18, 4, 13, 12, JUST DRAW FINAL DIAGRAM. 3
Q a) MAKE BST FROM THIS VALE 49,30,32,43,26,45,28 5
b) If the node 30 is removed from the tree, then which node takes the 30^{th} position?
Q Differnce between AVL and BST.

My Today's paper of CS301
12,13 mcqs 4m past ppr.
ques of 2 marks:
2 cases while deleting the node 4m BST.
2nd yaad nhi arha
ques of 3 marks.
how we performed single right rotaion in BST.
ek program given tha output btani thi .(pointers related)
ques of 5 marks;
BST given tha , pre-order travesral nd inorder traversal btanay thay.
ek AVL tree bnana tha insertion k liye data given tha.

Ye mcqz yad hain zyada past paprz say thay
duaon mein yad rkhein
1 The tree data structure is a
► Linear data structure
► Non-linear data structure
► Graphical data structure
► Data structure like queue
2 Suppose n is the number of nodes in a complete Binary Tree then maximum steps required for a search operation are,
► Log2 (n+1) -1
► Log2 (n+1)
► Log2 (n) – 1
► Log2 (n)
3 AVL Tree is,
► Non Linear data structure
► Linear data structure
► Hybrid data structure (Mixture of Linear and Non Linear)
► None of the given options.
4 Each node in doubly link list has,
► 1 pointer
► 2 pointers
► 3 pointers
► 4 pointers

5 Consider the following infix expression. 5 + 6/2 If one converts the above expression into postfix, what would be the resultant expression?

► 56/ + 2
► 5 6 2 / +
► 5 6 / 2 +
► /62 + 5

SUBJECTIVE

1) program ka output btana tha??????2
2) height and depth of tree??2
3) tree dya hua tha 3 question ka ans dena tha????? 3
4) dellte keys 29 35 75 60??????????5
5) inserting value into empty tree AVL ?????5

Today my paper was at 10:30.
Total 26 Questions
20 MCQ
2*2 Marks Questions
2*3 Marks Questions
2*5 Marks Questions
MCQ's were all about the BST, AVL, Linear trees Linked Lists and Bla Bla
Long questions are all from BST, AVL. none from linked list or any other.
So i guess those who had upcoming paper of 301 must study the trees and specially BST and AVL and recursive behaviour of trees.

My Today's paper.
MCQ's were mostly from past papers.....
Q 1: How can we calculate the height of tree?
Q 2: Draw the resultant binary search tree (BST) after deleting the node 8 from the following BST.

Q 3: show the result of inserting 2,1,4,5,9,3,6 into an empty AVL tree. You have to show only the complete AVL tree, steps are not required.
Q 4: Consider the following AVL tree. Insert a new node with key of 12,no need to show all steps just draw the final AVL tree.

Q 5: Last question related to Inorder and pre-order.
BEST OF LUCK

---

same here mery paper may be bs trees he thay,not in mcq's but subjective part has 4,5 questions about trees.
1)construct a BST of 5 numbers
2)what is AVL tree.
3)do double rotation in order to balance the tree.
4)write steps involved in the removing of node from the tree.and also construct the new tree.

70% paper in past papers
20 mcq's and 6 subjectives

the expression AB+C* is called?

Prefix expression
Postfix expression (correct)
Infix expression
None of the given

AVL tree is,

Non Linear data structure (correct)
Linder Data Structure
Hybrid data structure
Non of the give

A binary search tree should have minimum of one _____ node/s at each level,

One
Two (correct)
Three
Four

What will be the postfix notation of 5+6/2

56/+2
562/+ (correct)
56/2+
/62+5

Consider the following function:
void test_a(int n)
{
coutn"";
if(n>0)
test_a(-2);
}
what is printed by the call test_a(4)?

420 (correct)
024
02

24

we can add elements in QUEUE from_____

Front
Rear (correct)
Both Rear and Front
Non of the given

Consider the following infix expression:
3+5*6-7*(8+5)
which of the following is a correct equivalent expressio(s) for the above?

365+*758+-*
365758+*+-*
356+*785+-*
356*+785+*- (correct)

Subjective:

1. Queue is a non linear data stucture why? (2)
2. What is AVL tree (2)
3. Binery Search tree (3)
2 question in out put of post fix and in fix k they

70% paper in past papers
20 mcq's and 6 subjectives

the expression AB+C* is called?

Prefix expression
Postfix expression (correct)
Infix expression
None of the given

AVL tree is,

Non Linear data structure (correct)
Linder Data Structure
Hybrid data structure
Non of the give

A binary search tree should have minimum of one _____ node/s at each level,

One
Two (correct)
Three
Four

What will be the postfix notation of 5+6/2

56/+2
562/+ (correct)
56/2+
/62+5

Consider the following function:
void test_a(int n)
{
coutn"";
if(n>0)
test_a(-2);
}
what is printed by the call test_a(4)?

420 (correct)
024
02
24

we can add elements in QUEUE from_____

Front
Rear (correct)
Both Rear and Front
Non of the given

Consider the following infix expression:
3+5*6-7*(8+5)
which of the following is a correct equivalent expressio(s) for the above?

365+*758+-*
365758+*+-*
356+*785+-*
356*+785+*- (correct)

Subjective:

1. Queue is a non linear data stucture why? (2)
2. What is AVL tree (2)
3. Binery Search tree (3)
2 question in out put of post fix and in fix k they

Q:In case of in order traversal of BST, which node is node "in-order successor" of current node?**(2)**
Q:Which type of rotation of needed to restore the balance of the following.**(2)**

Q: Output btani thi **(3)**
Q:Draw BST of the values of 2,6,5,4,7,8,9 **(3)**

Q:Code was given:
2 parts were given to define that conditions of code.**(5)**
Q:Unbalanced tree was given ,perform the double rotation(both steps).Last inserted node is 8.**(5)**
