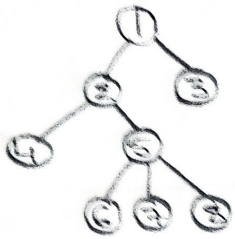
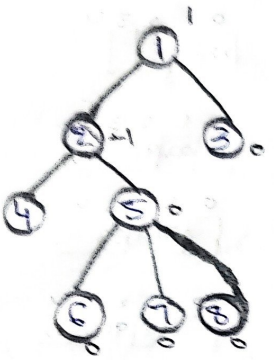
1) Calculate the Balance factor using AVL tree.

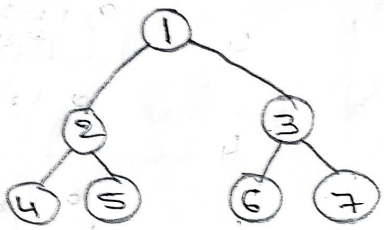


A. Balance factor = Height |LI - Height |RI.

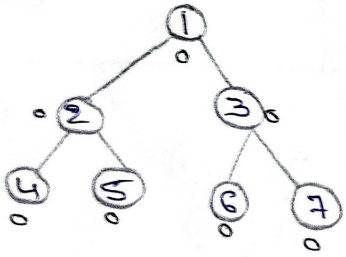


N. Dasthagiri
192124083
CSA0369 - Data structure

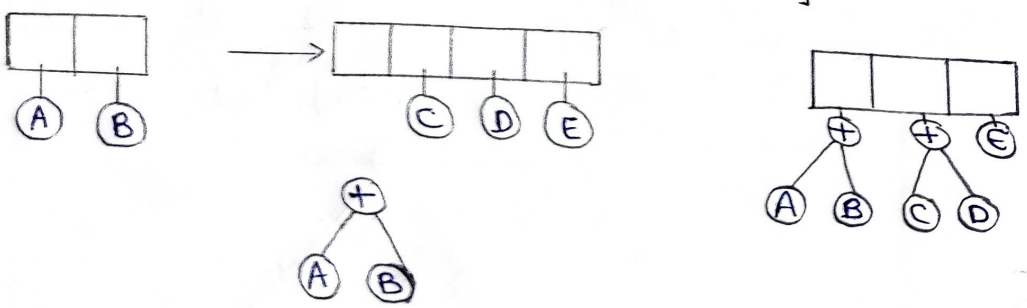
2) Balance factor using AVL Method.

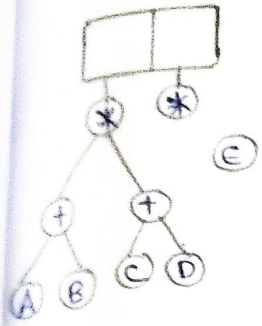


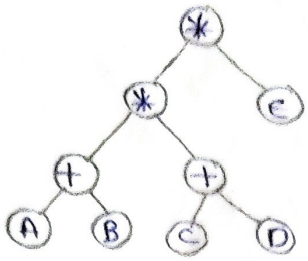
A, Balance factor = Height |LI - Height |RI.



3) Draw the concept map of Binary tree.





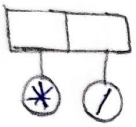


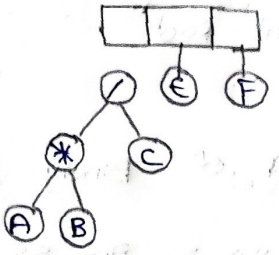
4. Draw the concept map of Binary tree for the expression.

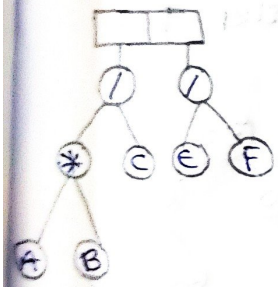
Ex:-

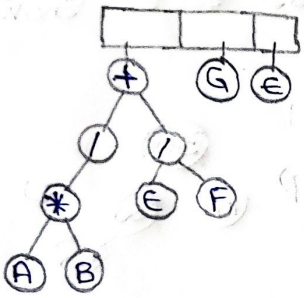
Postfix notation

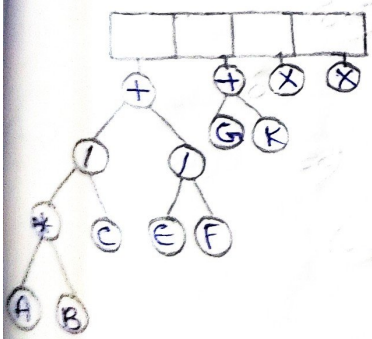
AB* C/ EF +/ GK * XY- *

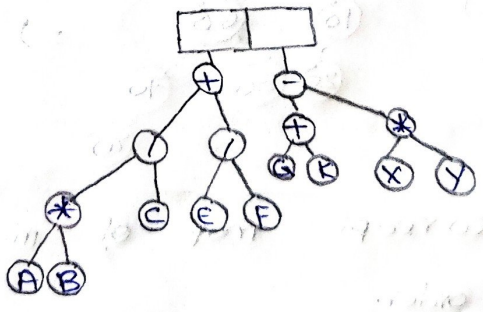


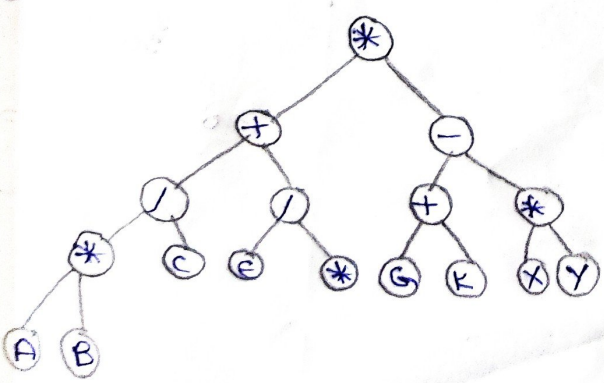




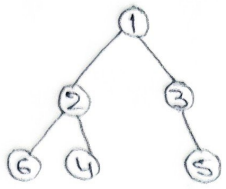








5, Draw the concept map of in-order and pre-order and Post traversal.



Sol :-

In-order :- left - Root - Right

6 2 4 1 3 5

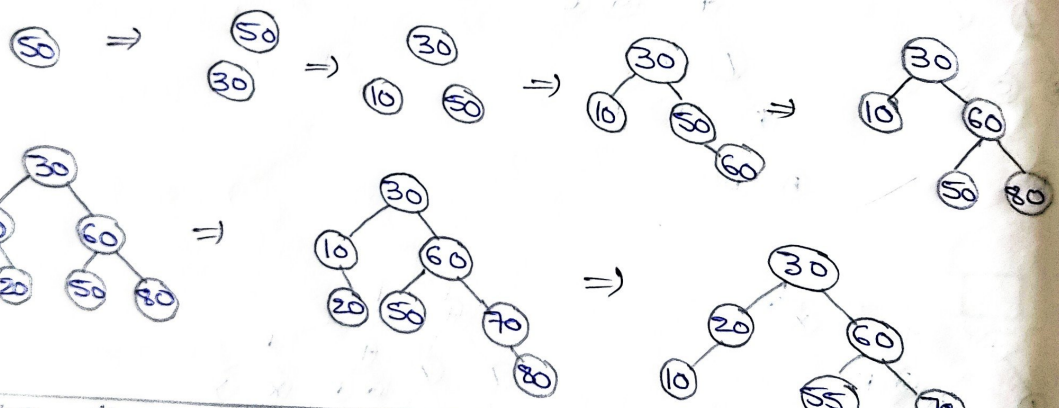
Pre-order :- Root - left - Right

1 2 6 4 3 5

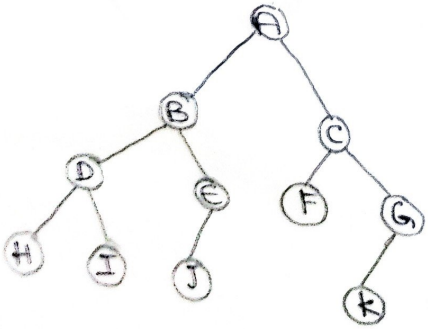
Post-order :- Left - Right - Root

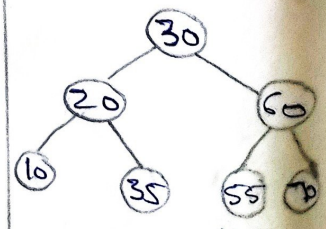
6 4 2 5 3 1

6, Draw the concept map of Binary search tree by Insertions the value 50, 30, 10, 60, 80, 20, 70, 55, 35, 5, show step-wise deletion of 5, 80, 50.



7, Draw the concept map of in-order Pre-order, Post-order.





In- order :- Left - Root - Right

H D I B J E A F K C G

Pre - order :- Root - Left - right

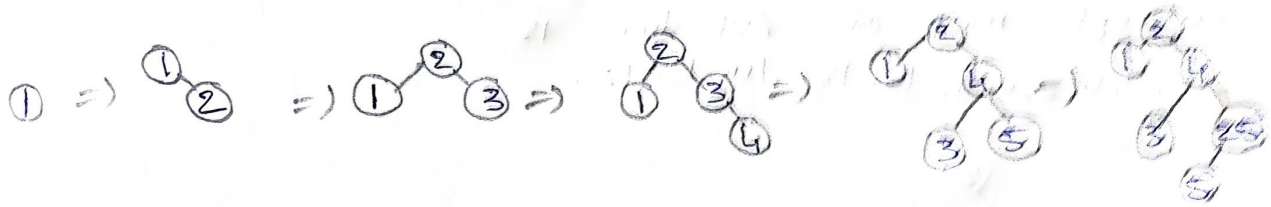
A B D H J I E C F K G

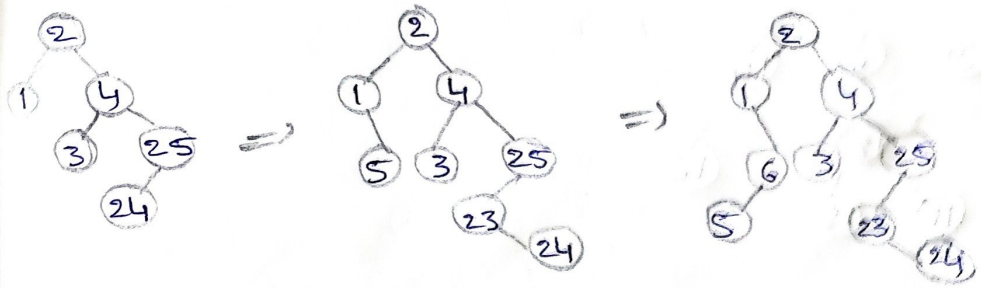
Post - order :- Left - right - Root

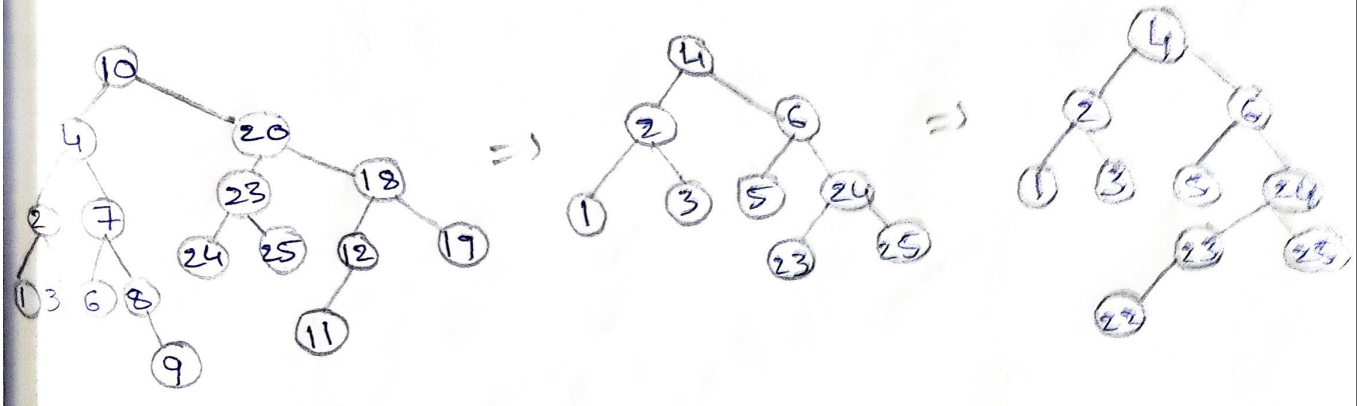
H I D J E B F K C G A.

8) Draw the concept map of Binary tree

1, 2, 3, 4, 5, 25, 24, 23, 6, 7, 22, 8, 9, 21, 10, 20, 19, 11, 13, 18 and Delete te 1, 4, 8, 20.

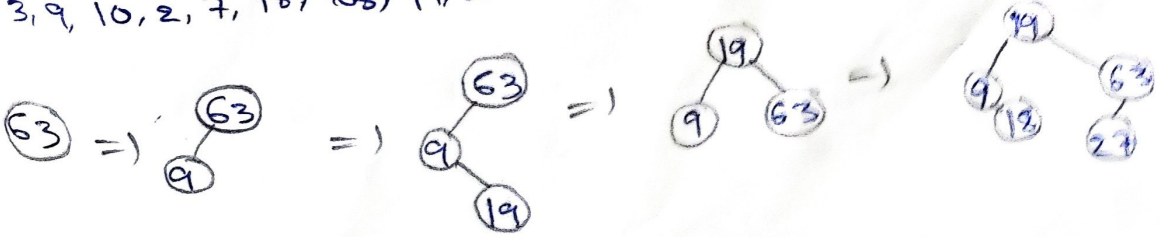


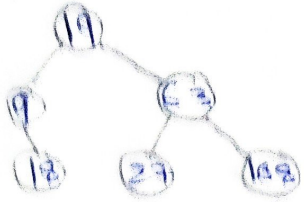


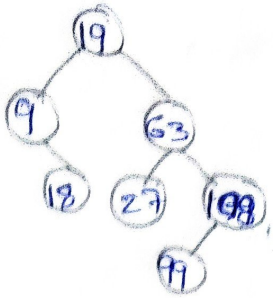


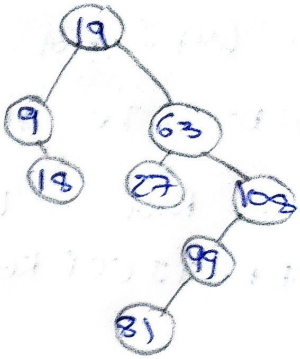
9) Draw the concept map of AVL tree for the following

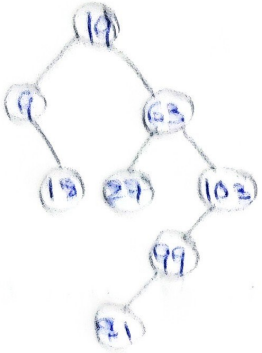
6, 3, 9, 10, 2, 7, 18, 108, 99, 81 followed by 10 to in reverse order

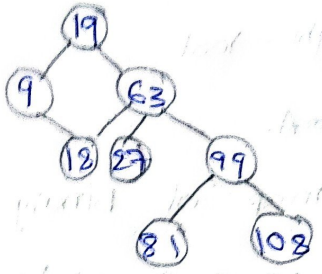












b. concept map of AVL tree is
3, 2, 1, 4, 5, 6, 7, 16, 15, 14, 13, 12.