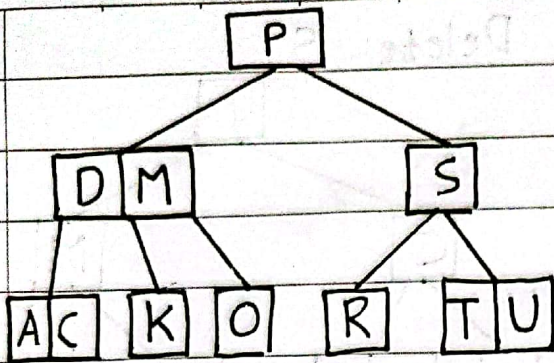
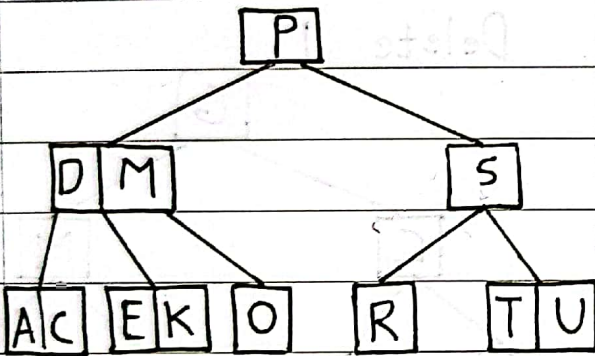


1. 2-3 Tree

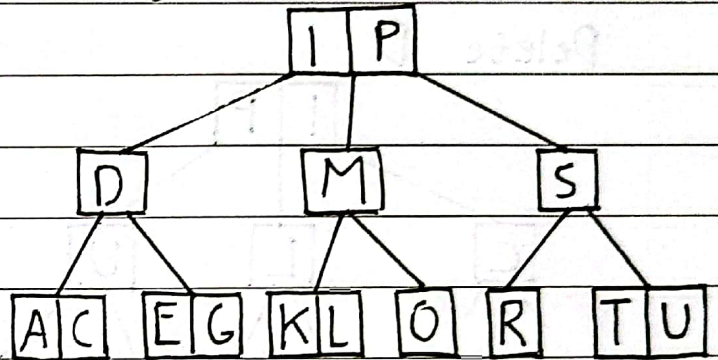
DATE :



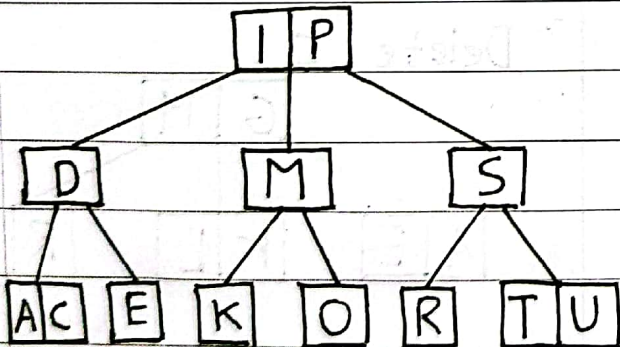
0 Insert E



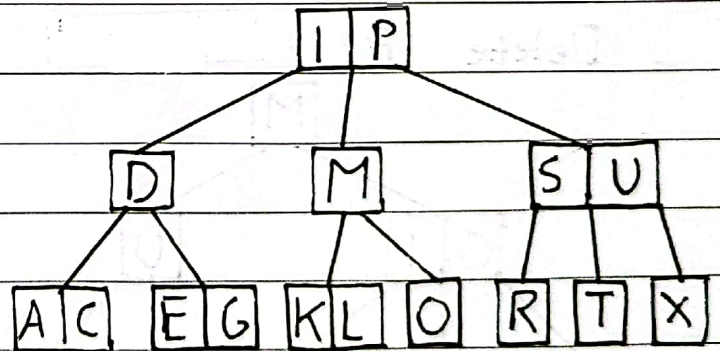
Insert G



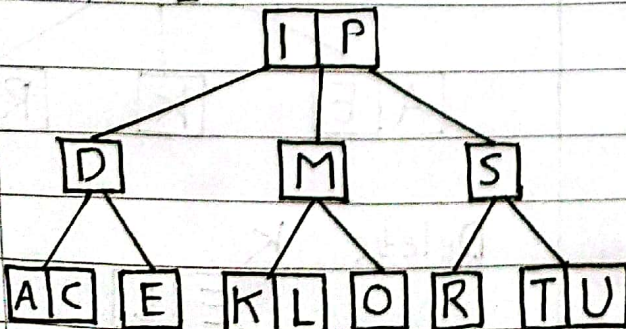
Insert I



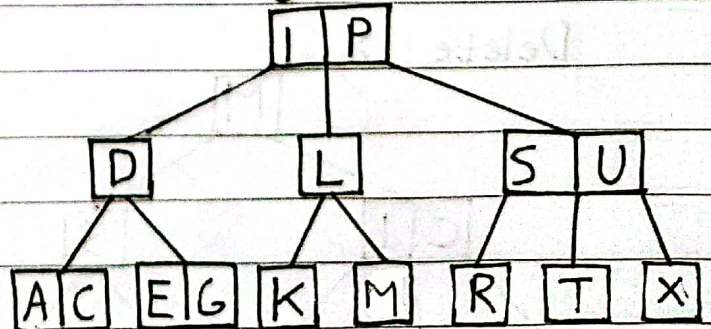
Insert X



Insert L

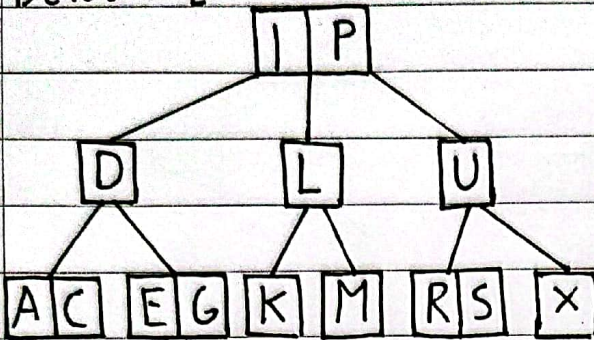


B. Delete O

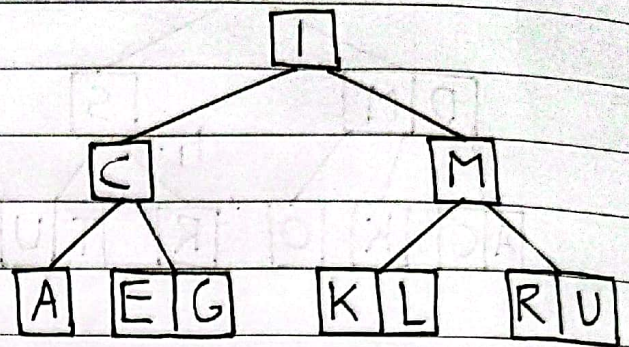




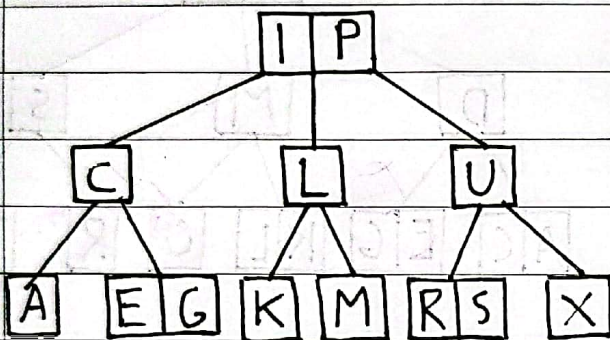
Delete t



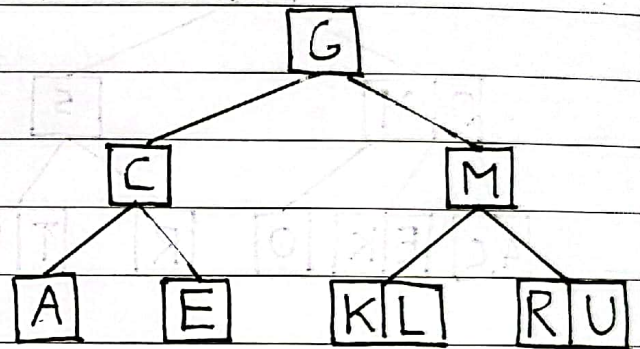
Delete S



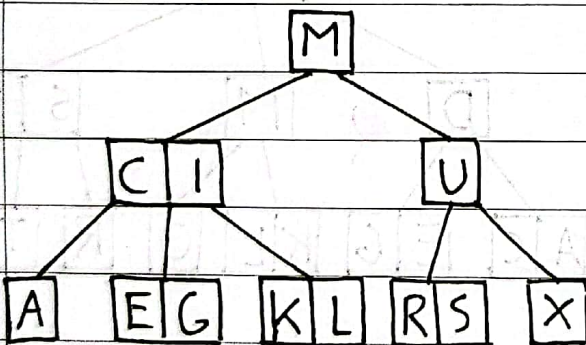
Delete D



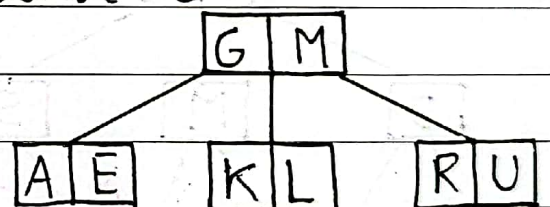
Delete I



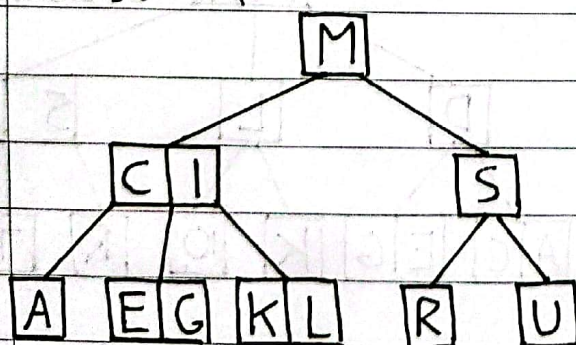
Delete P



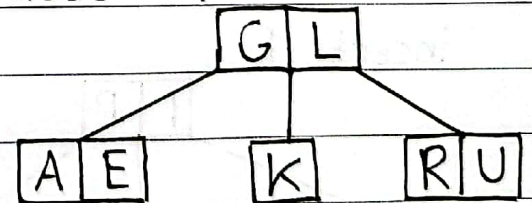
Delete C



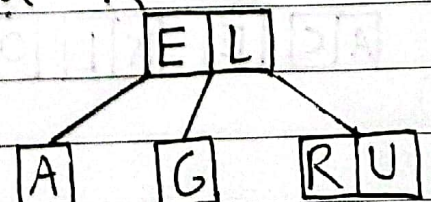
Delete x



Delete M

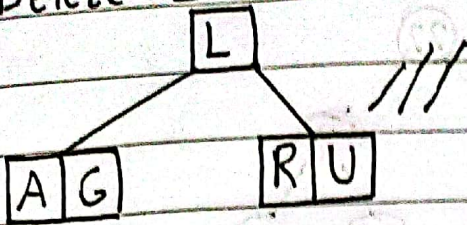


Delete K





Delete E

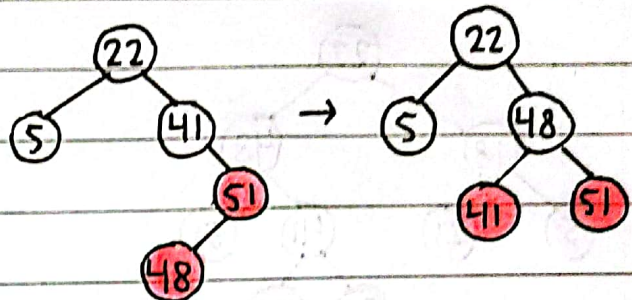


## 2 Red Black Tree

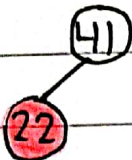
a Insert 41



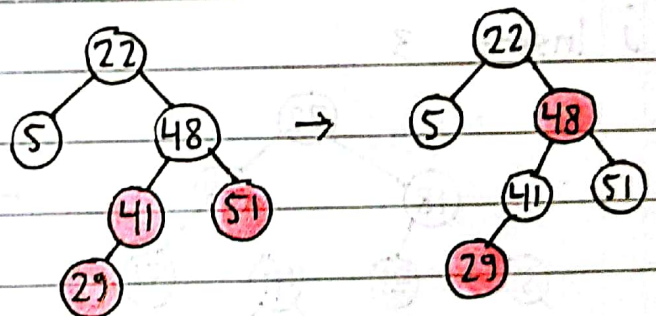
e. Insert 48



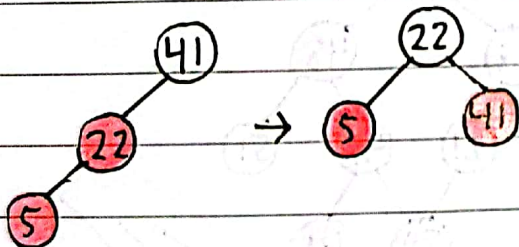
b Insert 22



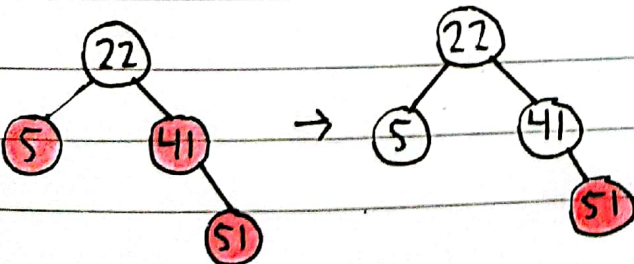
f. Insert 29



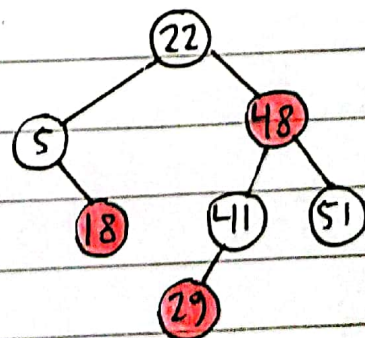
c Insert 5



d Insert 51

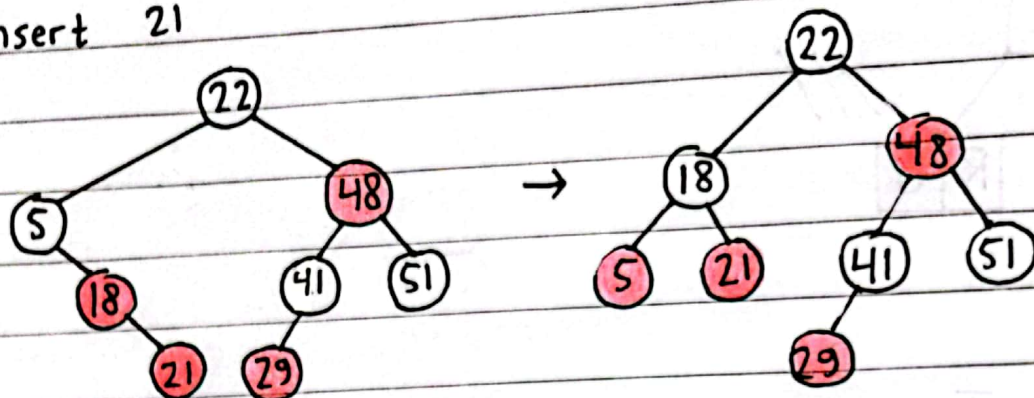


g. Insert 18

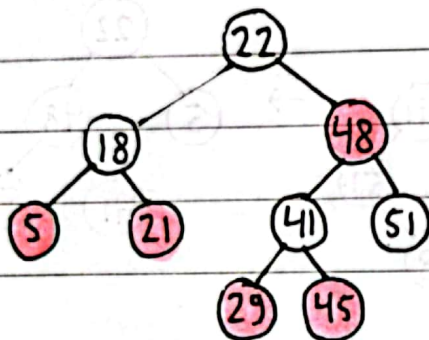




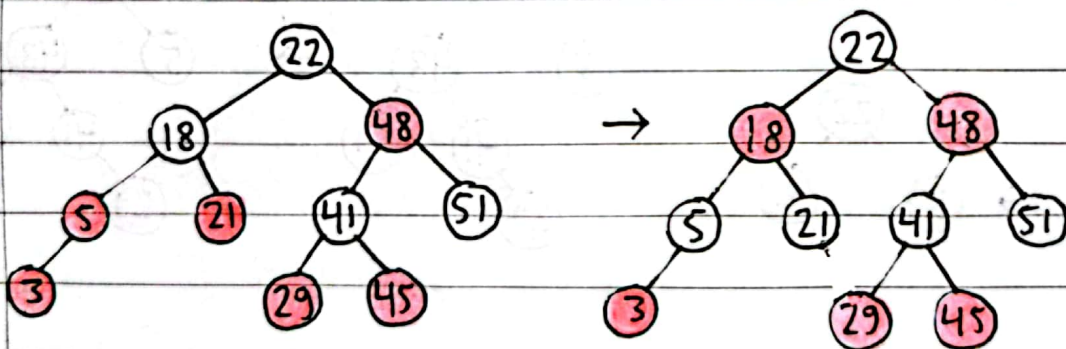
h Insert 21



i Insert 45



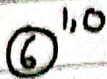
j Insert 3



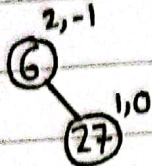


# 3 AVL Tree Insertion

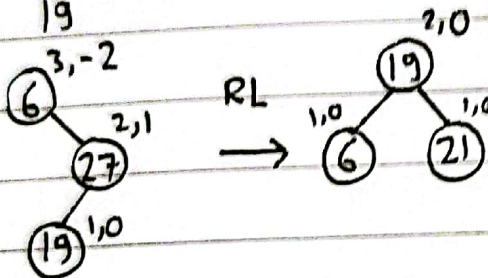
a Insert 6



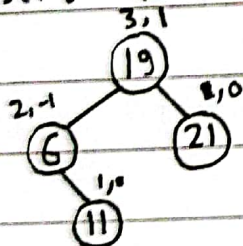
b Insert 27



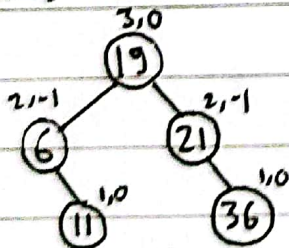
c Insert 19



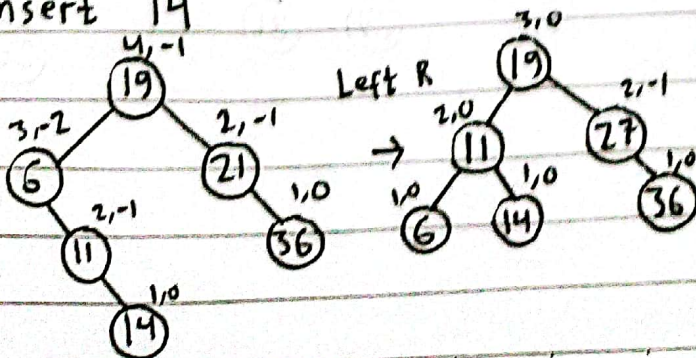
d Insert 11



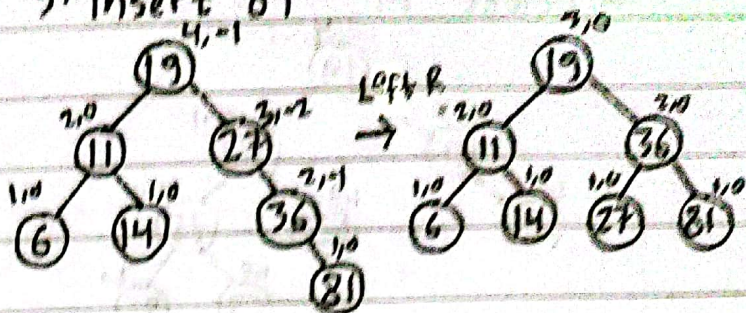
e Insert 36



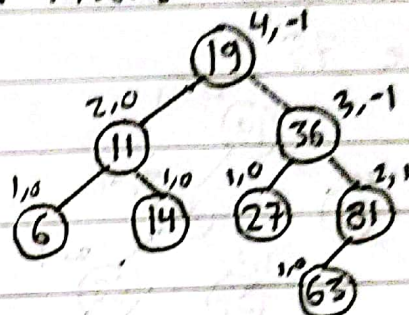
f Insert 14



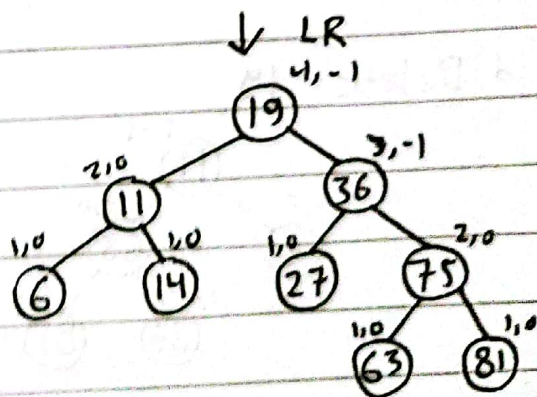
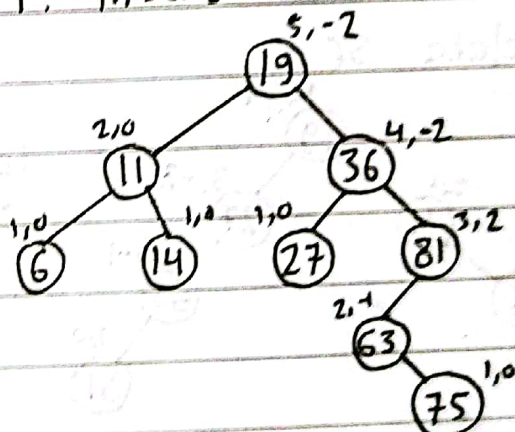
g. Insert 81



h. Insert 63



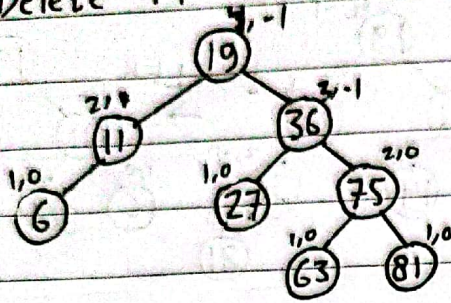
i. Insert 75



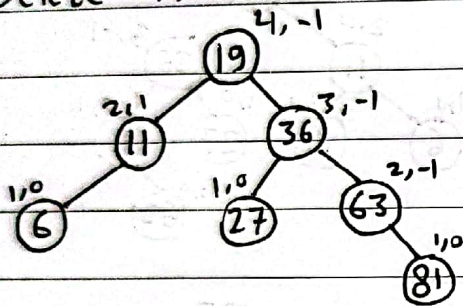


## AVL Tree Deletion

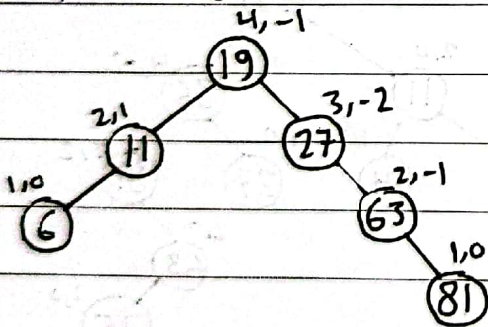
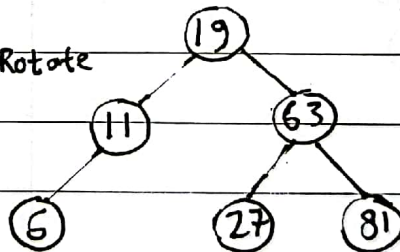
a Delete 14



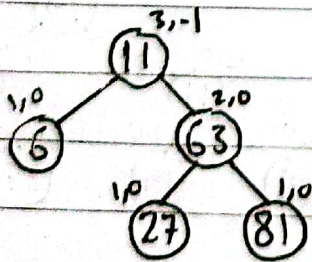
b Delete 75



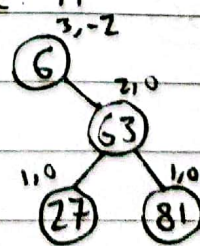
c Delete 36

Left Rotate  
→

d Delete 19



e. delete 11

Left Rotate  
→