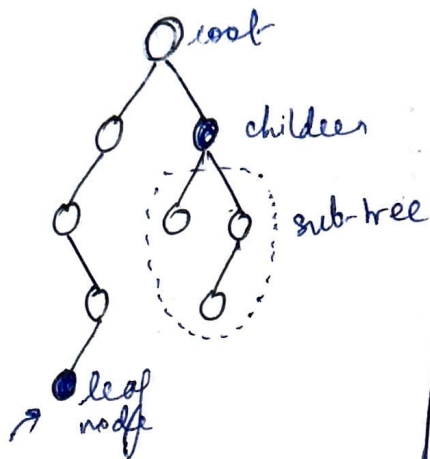
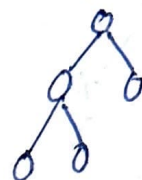


L1: Introduction to Trees



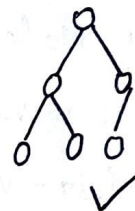
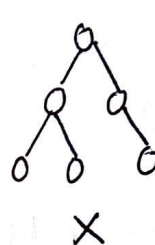
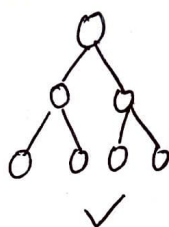
for this
all above nodes
are ancestors

- (.) Full Binary Tree \rightarrow either has 2 or 0 children
- (.) Complete BT
- (.) Perfect BT
- (.) Balanced BT
- (.) Degenerate Tree



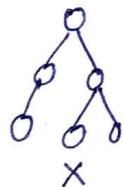
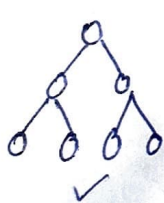
COMPLETE BT

- 1) all levels are completely filled except last level.
- 2) The last level has all nodes on left as possible.



PERFECT BT

- 1) all leaf nodes at same level &
- 2) all nodes have 2 children.



BALANCED BT

height of tree at max $\log_2(N)$ \swarrow nodes
eg $n=8$ $\log_2 8 = 3 \rightarrow$ height can be max 3.

DEGENERATE TREE

Each parent node has only one child associated with it.

