Some Terminologies

- C Leaves
 - Nodes with no children.
 - nodes with same parent
 - P, Q are siblings
 - K,L,M are siblings
- Subtree of node *n*
 - A tree that consists of a child (if any) of node n and the child's descendants



Some Terminologies

- Ancestor of node *n*
- A node on the pan from the root to A of 37 pre Ances page. J,E,A
 - Nod A is ancestor for all node in the tree
- Descendant of node *n* (\cdot)
 - A node on a path from *n* to a leaf
 - C Descendant E: I,J,P,Q
 - All nodes in the tree are descendant to the root.



A General Tree & A Binary Tree



Full Binary Trees

- A binary tree of height is full if hiddes at leees < h have two children each
- Recursive definition
 - If T is empty, T is a full binary tree of height 0
 - If T is not empty and has height h > 0, T is a full binary tree if its root's subtrees are both full binary trees of height





Summary

- An inorder trayersal of a binary search tree visits the tree's nodes in sorted Psearch key order
- The treesort algorithm efficiently sorts an array by using the binary search tree's insertion and traversal operations