Basic Terminology of a Tree

**Node:** Elements of a tree.

**Root:** A node with no parent node.

**Parent:** Immediate predecessor of a node.

E.g.=> Parent(I) = E

**Child:** Immediate successor of a node.

E.g.=> Child(E) = I

**Leaf/External Node:** Node which has no child.

**Non-Leaf/Internal Node:** Node at last step.

**Path:** Sequence of consecutive edges from source node to destination node.

**Ancestor:** Any Predecessor node on the path of that node from root.

E.g.=> Ancestor(I) = A, B, E

**Descendants:** Any Successor of node on the path from that node to leaf node.

E.g.=> Descendant(C) = G, L, M

**Subtree:** A tree containing a node of a tree with all its descendants.

**Siblings:** All Children of the same parent are siblings.

**Degree of a Node:** No. of children of that node.

**Degree of Tree:** Max degree of a node.

**Depth of a Node:** Length of the path from root to that node.

**Height of a Node:** No. of an edges from to the deepest leaf node.

NOTE: Height & Depth may or may not be same.

A Tree with n nodes is having n-1 edges.