

CS200 Quiz 7: Trees (10/21/08)

1. [Circle one] Each node in a tree has:
 - a. exactly one parent
 - b. at most one parent*
 - c. at most two parents
 - d. any number of parents
2. [Circle one] A full binary tree of height 3 (Rosen & class definition) has:
 - a. 4 nodes
 - b. 7 nodes
 - c. 8 nodes
 - d. 15 nodes*
3. [Circle all that are true]
 - a. A tree has only one simple path between any two of its nodes.*
 - b. A tree is m-ary if every internal vertex has no more than m children.*
 - c. Degree of a tree is the maximum degree of its nodes.*
 - d. An m-ary tree is called full if every internal vertex has exactly m children.*

4. [Circle all that are true] For the tree below:

- a. D is a leaf.
- b. X is a root.
- c. H is an ancestor of A.
- d. It has degree of 2.*
- e. The tree is balanced.
- f. The tree is complete.
- g. B has height=1.
- h. B is a parent of Q.

