Pulido, Billy Gilson R. - BSCpE 2-2 - CPEN 65

- 6. {13, 6, 60}
- 7. {7}
- 8. Node 23 has no siblings
- 9. Nodes {4, 12, 7, 22} are ancestors of node 9
- 10. Nodes {13, 6, 60, 23, 21} are descendants of node 16
- 11. Nodes {23, 6, 21, 20, 9, 1} are leaves
- 12. Nodes {22, 16, 7, 13, 60, 12, 5} are non-leaves
- 13. Depth of node 4 is 3
- 14. Degree of the tree is 3
- 15. Height of the tree is 4
- 16. Weight of the tree is 6
- 17. No, it is a triary tree
- 18. No, because some nodes only have one degree like nodes {13, 60, 4}
- 19. No, same reason as no.19
- 20. No, because a full binary tree can have different heights for each subtree.
- 21. Yes
- 22. nh leaves, if n=3 and h=4 then leaves would be 81
- 23. The height would be log_nm.
- 24. (nh-1)/(n-1), if n=3 and h=4 then internal nodes would be 40
- 25. $[(n^h-1)/(n-1)] + n^h$, if n=3 and h=4 then total number of nodes would be 121.

If it were a complete binary tree with h=3 then total no. of nodes would be 15.