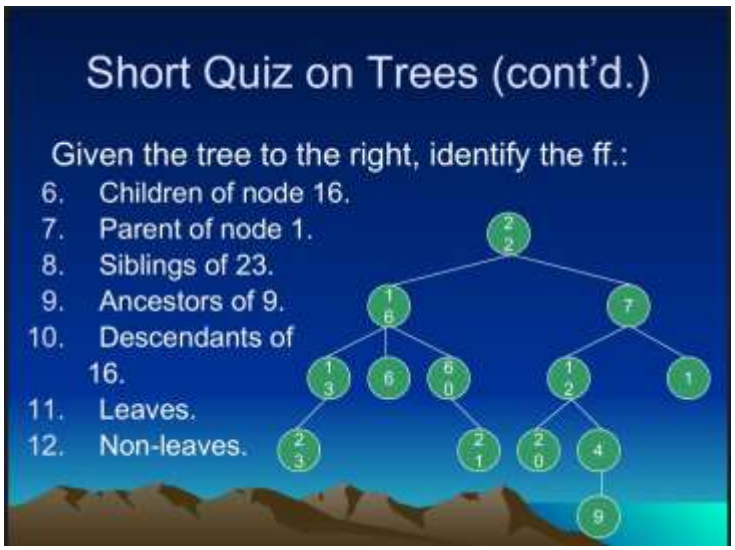
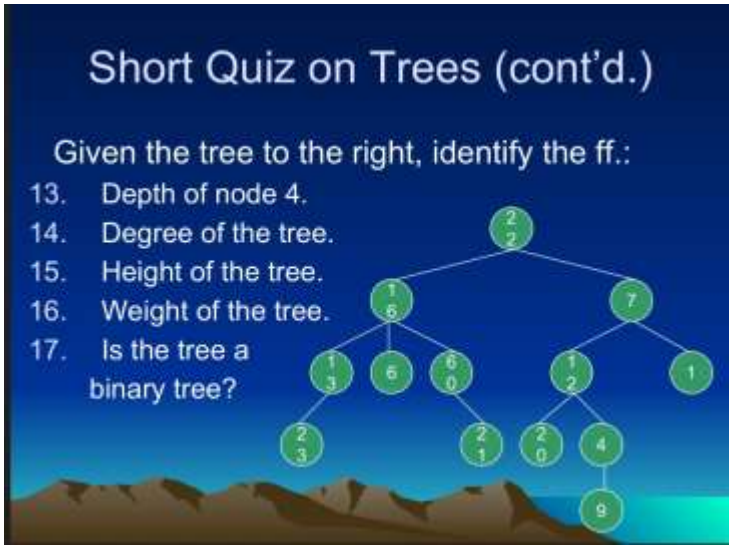
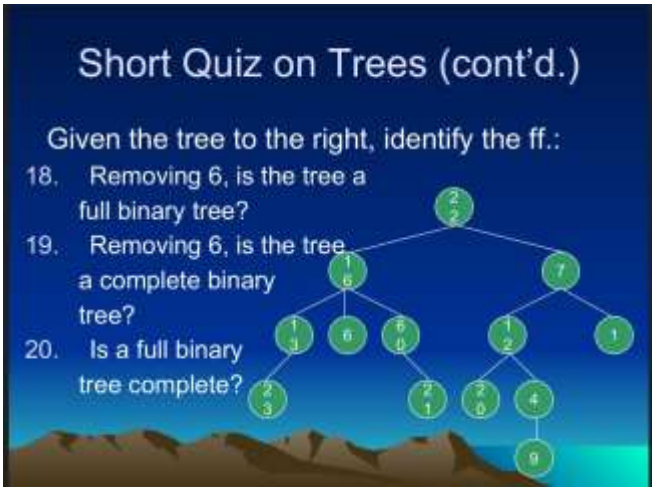
JHON ARVIN T. VIADO **CPEN65**
BSCPE2-2



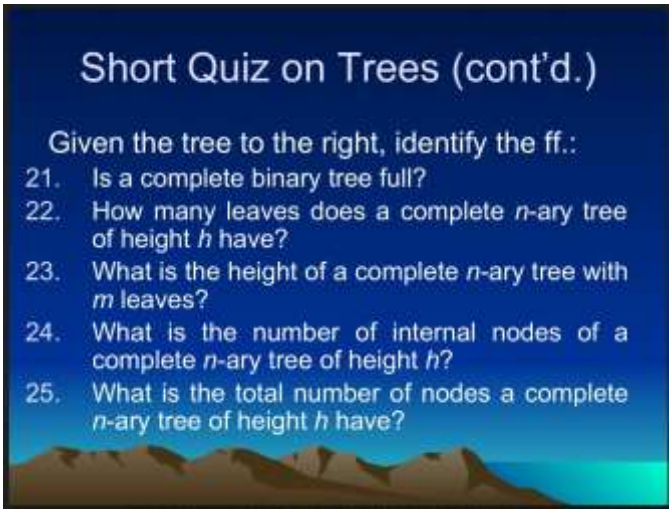
6. V = {13, 6, 60}
7. V = {7}
8. None
9. V = {22,7,12,4}
10. V = {13,6,60,23,21}
11. V = {23,6,21,20,9,1}
12. V = {22,16,7,13,60,12,4}



13. The depth of this tree is 3.
14. The degree of this tree is 3.
15. The height of this tree is 4.
16. The weight of this tree is 6.



18. No, because node 4 only has one child, which is node 9.
19. Yes, because every other node is completely filled.
20. No, because a full binary tree can be defined as a binary tree in which all nodes have 0 or two children, whereas a complete binary tree is a binary tree in which all levels are completely filled except possibly the lowest one, so nodes with only one child node may exist.



21. No, because a complete binary tree has all completely filled except possibly thelowest one so there might be nodes who have only one child node or zero.
22. n^h
23. $\log_n m$
24. $1 + n + n^2 + \ldots + n^{h-1} = \sum_{i=0}^{h-1} n^i = \frac{n^h - 1}{n-1}$; $2^h - 1$
25. n = [(k^(h+1))-1]/(h-1)