

Ans 1]

In order → A, K, B, I, C, L, I, D, E, H, F, G

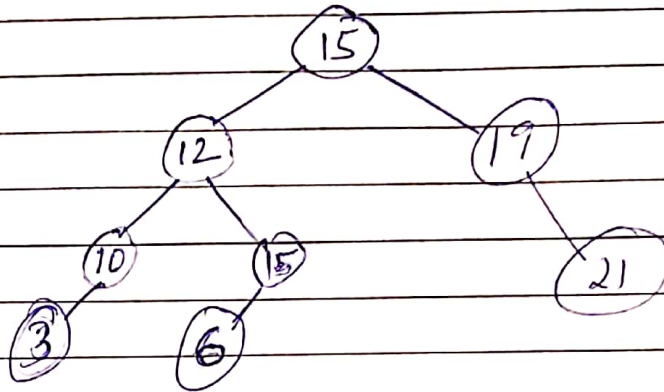
pre-order → L, K, A, I, B, C, I, H, E, D, F, G

post-order → A, B, C, I, K, I, D, E, F, G, H, L

Breadth-first → L, K, I, H, A, I, E, F, G, B, C, D

Ans 2]

(i) new tree is

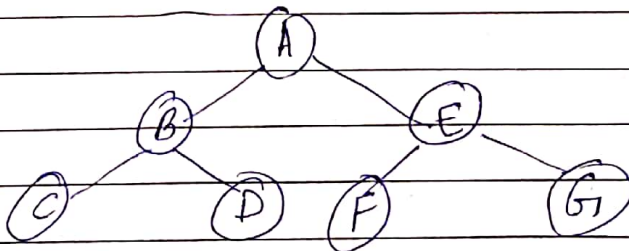


(ii) It is not a AVL tree.

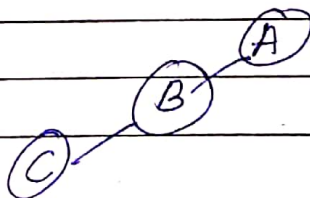
Ans 3]

maximum nodes = $2^h - 1$

$$= 2^3 - 1 = 7$$



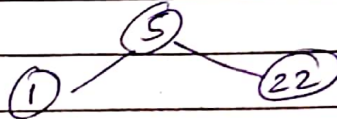
minimum no. of nodes = 3 (left or Right Skew tree).



Ans 4] False,

Because pre order is (root, left, right) and in a Binary search tree right is always greater than root. ~~20~~, and the left is always smaller than root

eg:-

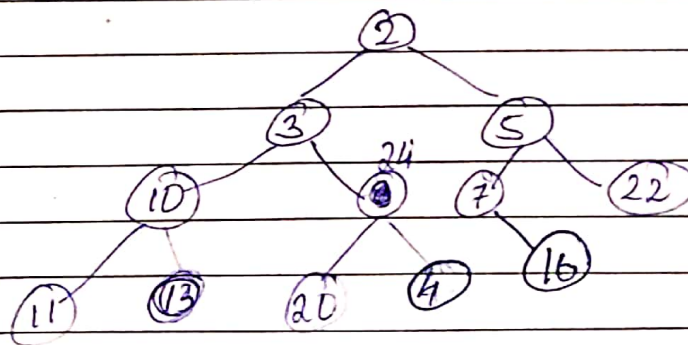


pre-order : 5, 1, 22

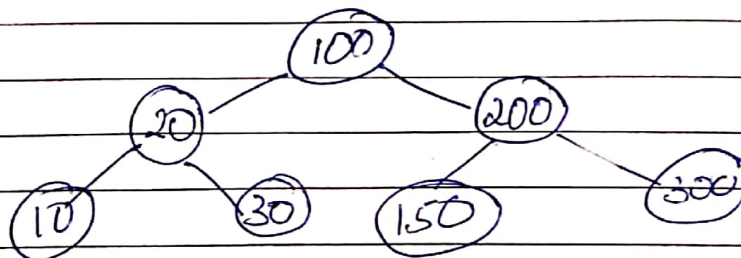
Ans 5]

Breadth order \rightarrow [2, 3, 5, 10, 8, 7, 22, 11, 13, 20, 24, 16]

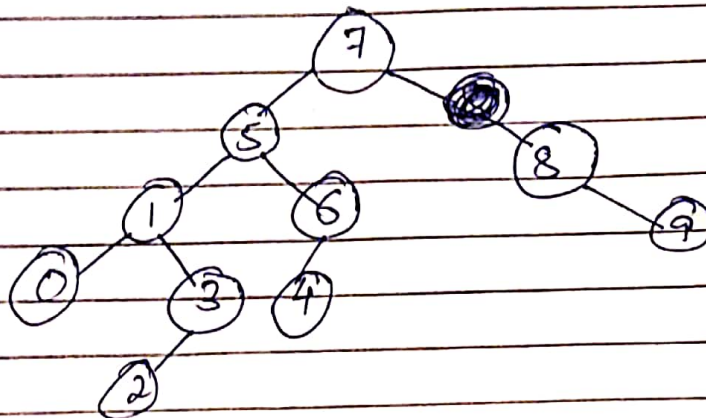
final tree



Ans 6]



Ans 7



(3) 0, 1, 2, 3, 4, 5, 6, 7, 8, 9