1. You are given a sorted Array of the following elements: 217, 295, 349, 419, 425 and 443. Now, your task is to choose an efficient algorithm and to show the every steps for searching the item ‘445’ from the given Array using your chosen algorithm.
2. A binary tree T has 12 nodes. The inorder and preorder traversals of T yield the following sequences of nodes:

Inorder: D N A I T O R S M H G L

Preorder: A N D L G O I T R M S H

**Draw the Tree T**

**3.** Distinguish Complete Binary Tree and Full Binary Tree .

Consider a Full Binary Tree with Level 4. Now calculate the maximum number of nodes and

number of leaves of that tree.

4. Write an algorithm to find the factorial of a number entered by user.

5. Write an algorithm to check whether a number entered by user is prime or

Not.