

## SET 6

### Binary tree (cont.)

#### binary tree traversal

1. Given preorder and inorder traversal of a binary tree with *distinct* elements, create the tree
  - a) specify and design the operation
  - b) illustrate how the subalg/function. works

*Hint:* write recursive subalg.
2. Given postorder and inorder traversal of a binary tree with *distinct* elements, create the tree

#### Iterators over binary tree

3. Design a forward iterator over a binary tree; traverse the tree non-recursive, on levels, left-to-right.
  - a) specification
  - b) representation
  - c) pseudocode
4. Design a forward iterator over a binary tree; traverse the tree non-recursive, in pre-order.
5. Design a forward iterator over a binary tree; traverse the tree non-recursive, in in-order.

#### operations on binary search tree

1. For the set of keys {1,4,5,10,16,17,21} , draw binary search trees of height 2,3,4,5,6.
2. Create a BST
3. Given a node (as position) in a BST, get its successor (as position)
4. Get the maximum value from a BST
5. Remove the maximum value from a BST
6. Sort a sequence of numbers by using a binary search tree