# Lab 5

## Binary Search Trees.

Write code for the following methods of binary search trees.

(1) SEARCH($x$, $k$) (recursion and iterative version); (20%)

(2) SUCCESSOR($x$) and PREDECESSOR($x$); (30%)

(3) INORDER-TREE-WALK($T$), PRERDER-TREE-WALK($T$), POSTORDER-TREE-WALK($T$); (50%)

Note. $T$ points the root of a binary search tree, $x$ points any node in a binary search tress, and $k$ denotes a key.