Submit your typed answers to the questions below using the department's Gitlab server by November 13, 2015 @ 11:59pm. Put your PDF into a folder named `theory_assignment5`.

1. Provide pseudocode for a stack using a singly linked list. The operations Push and Pop should still take $O(1)$ time.

2. Write an $O(n)$–time recursive procedure that, given an n–node binary tree, prints out the key of each node in the tree.

3. Write an $O(n)$–time nonrecursive procedure that, given an n–node binary tree, prints out the key of each node in the tree. Use a stack as an auxiliary data structure.