Department of Information Technology
Indian Institute of Engineering Science and Technology, Shibpur
Data Structure Lab
3rd Semester HY- 2018
Assignment - 6

Due date : 25 OCTOBER 2018

1. You have a set of words. Write a program to sort all the words given using Binary search tree.

2. Implement a ternary tree where each node may contain two key values in sorted form. Each node may have maximum three children. Data insertion rule for the tree is as search tree i.e. data in leftmost child is less than the data of first key. Data in the middle child is greater that the first key but less than second key. Data in third child is greater than the data in second key.

3. Write a program to implement BST using three array (data, left address, right address). Also write an in-order traversal of this binary search tree using stack.

4. Write a C Program to implement the Max Heap and then delete all the elements from the tree so that the deleted elements are in sorted order.

5. Write a C program to implements Huffman Coding. Build a Huffman Tree from input strings. The strings are generated from a given binary string such that all the sub-strings are as follows:
1, 01, 001, 0001, 00001, etc.

Traverse the Huffman Tree and assign codes to substring.