



**भारतीय सूचना प्रौद्योगिकी संस्थान गुवाहाटी**  
**Indian Institute of Information Technology Guwahati**  
**DATA STRUCTURES LAB (CS111)**  
**ASSIGNMENTS-09**

**Assignments to be completed during lab sessions**

1. Write a function to insert a new node corresponding to a given key in a binary search tree using recursion.
2. Write a function to insert a new node corresponding to a given key in a binary search tree without recursion.
3. Write a function to find the node with the minimum key value in a given binary search tree.
4. Write a function to find the node with the maximum key value in a given binary search tree.
5. Write a function to find the node with a given key value in a given binary search tree.
6. Write a function to delete a node corresponding to a given key from a binary search tree.
7. Write a function to print the keys in a binary tree with in-order traversal.
8. Write a function to print the keys in a binary tree with pre-order traversal.
9. Write a function to print the keys in a binary tree with post-order traversal.
10. Write a function to find the node with the minimum key value in a given binary tree.
11. Write a function to find the node with the maximum key value in a given binary tree.
12. Write a function to check whether a binary tree is a binary search tree.