



भारतीय सूचना प्रौद्योगिकी संस्थान गुवाहाटी
INDIAN INSTITUTE OF INFORMATION TECHNOLOGY GUWAHATI

Data Structure Lab, B.Tech 2nd Semester

Assignment -9

1. Write a C program that find the number that appeared the maximum number of times in an array in $O(n \log n)$ time.
2. Write a C program to check whether the given binary tree is a Binary Search Tree or not. Note that the time complexity of your algorithm should be $O(n)$.
3. Given two BSTs, check whether the elements of them are the same or not. For example: two BSTs with data 10 5 20 15 30 and 10 20 15 30 5 should return true and the dataset with 10 5 20 15 30 and 10 15 30 20 16 should return false. Note: BSTs data can be in any order.
4. Given a BST and two numbers K1 and K2, write a C program for printing all the elements of BST in the range K1 and K2.