



भारतीय सूचना प्रौद्योगिकी संस्थान गुवाहाटी
INDIAN INSTITUTE OF INFORMATION TECHNOLOGY GUWAHATI

Data Structure Lab, B.Tech 2nd Semester

Instructions

1. After completion, you can share the files in mail to g1.ds.lab.iiitg@gmail.com.
2. Deadline to submit is 31st June 2022.

Assignment -9

1. 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 $O(n)$.
2. 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.
3. 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.
4. Write a C program to find the kth largest element in max-heap. [For this question your deadline is 4th July 2022.]