



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 through the google form, the link will be provided.
2. Deadline to submit is 1st July 2023.

Assignment -10

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.