

भारतीय सूचना प्रौद्योगिकी संस्थान गुवाहाटी Indian Institute of Information Technology Guwahati

DATA STRUCTURES LAB (CS111) ASSIGNMENTS-10

Assignments to be completed during lab sessions

- 1. Write a function to find the node with a given key value in a given binary tree.
- 2. Write a function to find the height of a given node in a binary tree.
- 3. Write a function to find the depth of a given node in a binary tree.
- **4.** Write a function to create the mirror of a binary tree.
- **5**. Write a function to make a clone of a given binary tree.
- **6**. Write a function to compare the keys of two trees. It should return 1 if they are the same and 0 otherwise.
- 7. Write a function to delete a given binary tree.
- 8. Write a function to find the in-order predecessor of a given node in a binary tree.
- 9. Write a function to find the in-order successor of a given node in a binary tree.
- 10. Write a function to count the number of leaf nodes in a given tree.
- 11. Write a function to count the number of non-leaf nodes in a given tree.
- **12.** Write a function to print the keys of the leaf nodes in a given tree following in-order traversal.
- 13. Write a function to print the keys of the non-leaf nodes in a given tree following in-order traversal.