

CET2001B

S.Y. B. Tech. Academic Year 2022-23 Semester: IV
Advanced Data Structures

LABORATORY WRITE UP

Experiment Number: 04

TITLE: Threaded Binary tree and its Traversal

PROBLEM STATEMENT:

Implement threaded binary tree and perform inorder traversal.

OBJECTIVE:

1. To study the data Structure : Threaded Binary Tree
2. To study the advantages of Threaded Binary Tree over Binary Tree

THEORY: *//To be Written by Students*

// Write theory by elaborating below points

Write in brief about

1. The data structure : Threaded Binary Tree
2. Space Utilization in Threaded Binary Tree

IMPLEMENTATION:

● **PLATFORM:**

- o 64-bit Open source Linux or its derivatives.
- o Open Source C++ Programming tool like g++/Eclipse Editor.

● **TEST CONDITIONS:-**

1. Input at least 10 nodes.
2. Display inorder traversal of binary tree with 10 nodes.

● **PSEUDO CODE:** *//To be Written by Students*

Write pseudo code for create, inorder traversal.

● **TIME COMPLEXITY:** *//To be Written by Students*

Find out time complexity of above operations

● **CONCLUSION:**

Thus, implemented threaded binary tree with inorder traversal.

● **FAQs** *//To be Written by Students*

1. Why TBT can be traversed without stack?
2. What are the advantages and disadvantages of TBT?
3. Write application of TBT

● **PRACTICE ASSIGNMENTS**

1. Write a program to display leaf nodes of threaded binary tree.