

THADOMAL SHAHANI ENGINEERING COLLEGE

Theory Assignment - 2

**Subject: Data Structure
2021-22**

Branch: Computer

Semester: III

1.	Demonstrate step by step insertion of the following elements in an AVL tree. 63, 9, 19, 18, 108, 99, 81, 45, 12, 106
2.	Given the frequency for the following symbols, compute the Huffman code for each symbol. (10) Symbol A B C D E Frequency 24 12 10 8 8
3.	What is Hashing? Hash the following data in a table of size 10 using linear probing and quadratic probing. Also find the number of collisions. 63, 82, 94, 77, 53, 87, 23, 55, 10, 44
4.	Given the postorder and inorder traversal of a binary tree, construct the original tree: Postorder: D E F B G L J K H C A Inorder: D B F E A G C L J H K
5.	Write a short note on Topological sorting