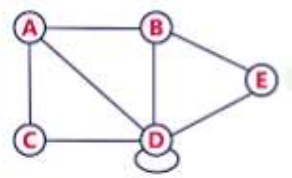
Department of Computer Science and Engineering,
Anna University, Chennai- 600025
CS6104 – Data Structures and Algorithms (R 2018)
Practical
August – December 2023
Year/Sem/Batch : II/III/ P

Exercise: 07	GRAPHS AND SPANNING TREE	19 – Oct - 2023

Observation (5 Marks)

1. List the different types of graphs
2. What are the two ways to represent graphs?
3. Represent the following graph in adjacency matrix and adjacency list.



4. Write 5 BFS and DFS traversal for the above graph.
5.

Execution (15 Marks)

1. (a) Construct a Binary Search Tree (BST) for the following sequence of numbers-

50, 15, 62, 5, 20, 58, 91, 3, 8, 37, 60, 24

(b) Write the number of nodes in left sub tree and right subtree

(c) How many distinct binary search trees can be constructed out of 4 distinct keys?

(d) Write all the traversal sequences of the given BST

4. Construct a Binary Search Tree with the following alphabets

M,R,I,L,E,K,O,U,P,R,T,G and do the basic operations insert , delete and search

a. Insert the alphabets Q and V
b. Delete the alphabets G,O,M
c. Search an alphabet E

5. Implement preorder , inorder and post order traversal operations in BST