L. D. College Of Engineering
Practical List
1ST SEM ME -CE

M. E. SEMESTER: **I** **Computer Engineering**

Subject Name: **ADVANCE DATA STRUCTURES**

Subject Code: **3710215**

List of Experiments:

(Note: At least 12 Practicals should be performed from the list.)

1. Write a program which creates Binary Search Tree. And also implement recursive and non-recursive tree traversing methods inorder, preorder and post-order for the BST.

2. Write a program to implement any two hashing methods. Use any one of the hashing method to implement Insert, Delete and Search operations for Hash Table Management.

3. Explain Dictionary as an Abstract Data Type. Implement Dictionary using suitable Data Structure.

4. Write a program which creates AVLTree. Implement Insert and Delete Operations in AVL Tree. Note that each time the tree must be balanced.

5. Implement Red-Black Tree.

6. Implement 2-3 Tree.

7. Implement B Tree.

8. Implement a program for String Matching using Boyer-Moore Algorithm on a text file content.

9. Implement a program for String Matching using Knuth-Morris-Pratt Algorithm on a text file content.

10. Implement Huffman-Coding Method. Show the result with suitable example.

11. Implement Longest Common Subsequence(LCS) Problem using Dynamic Programming Method. Show the DP table and also find the particular solution of given strings.

12. Implement One Dimensional and Two Dimensional Range Searching in any language.

13. Write a program which creates Priority Search Tree. Implement Insert and Search Operations in this Tree.

14. Write a program which creates Skip Lists. Implement Insert, Search and Update Operations in Skip-Lists.

15. Design a simple search engine to display the possible websites upon entering a search query. Use suitable data structure for storage and retrieval.

16. Prepare a Report/Presentation on Recent trends on Hashing/Trees/Computational Geometry to solve ay of recent evolving problem in real world.