## Vishnu Institute of Technology (Autonomous) :: Bhimavaram Department of Computer Science and Engineering

## ADS&AA Internal Lab

## Class - II CSE B and C

- 1. Construct an AVL tree for a given set of elements which are stored in a file. And implement insert and delete operation on the constructed tree. Write contents of tree into a new file using in-order.
- 2. Construct Min Heap using arrays, delete any element and display the content of the Heap
- 3 Construct Max Heap using arrays, delete any element and display the content of the Heap
  - 4. Implement BFT for a given graph using Adjacency Matrix representation
  - 5. Implement BFT for a given graph using Adjacency List Representation
  - 6. Implement DFT for a given graph using Adjacency Matrix representation
  - 7. Implement BFT for a given graph using Adjacency List Representation
- 8. Implement Quick sort.
- 9. Implement Merge sort.
- 10. Implement Fractional Knapsack problem using greedy strategy.
- 11. Implement Job Sequencing with Deadlines problems using greedy strategy.
- Inplement Dijkstra's algorithm for solving single source shortest path problem.
- 13. Design a program to solve 0/1 knapsack problem using Dynamic Programming.
- 14. Implement Edit Distance algorithm to find the minimum edit sequence cost.
- 15. Implement N-Queens problem using backtracking.
- 16. Implement Graph-Coloring problem using backtracking