Data Structures Lab ICT 255

- 1. Implement operations (traverse, insert, delete, linear search, selection sort) on an array.
- 2. Implement insertion (at the beginning, at specified location, at the end) on single linked list and circular single linked list.
- 3. Implement deletion (at the beginning, at specified location, at the end) on single linked list and circular single linked list.
- 4. Implement insertion (at the beginning, at specified location, at the end) on double linked list and circular double linked list.
- 5. Implement deletion (at the beginning, at specified location, at the end) on double linked list and circular double linked list.
- 6. Write a program to count the number of nodes & reverse the single linked list.
- 7. Write a program to merge two sorted linked list and display the final sorted linked list.
- 8. Implement addition of two polynomial expressions using singly linked list.
- 9. Implement operations (push, pop) on a stack using arrays. Check the status of the stack whether there is underflow or overflow.
- 10.Implement the conversion of infix notation to postfix notation.
- 11.Implement the evaluation of postfix notation using stacks.
- 12.Implement binary search using recursion.
- 13.Implement operations (enqueue, dequeue) on a queue using arrays. Check the status of the queue whether it is empty or full.
- 14.Implement circular queue using arrays and linked list.
- 15.Implement stacks and queues using linked list.
- 16.Implement Sparse Array.
- 17.Implement operations on Binary Search Tree (Insertion, Deletion, Search, Traversals (using recursion)- Inorder, Preorder, Postorder).
- 18.Implement traversals on Binary Search Tree (using stacks) Inorder, Preorder, Postorder).
- 19.Implement graph traversal (DFS & BFS)
- 20.Make a menu driven program to perform various sorting techniques (insertion, shell, merge, heap, bubble, quick).