1. Consider a student database of SEIT class. Database contains different fields of every student like Roll No, Name and SGPA.Design a roll call list, arrange list of in ascending order (Use Bubble Sort)

2. Consider a student database of SEIT class. Database contains different fields of every student like Roll No, Name and SGPA. Arrange list of students according to name. (Use Insertion sort)

3. Consider a student database of SEIT class. Database contains different fields of every student like Roll No, Name and SGPA Search students according to SGPA. e. Search a particular student according to name using binary search without recursion.

4. Implement stack as an abstract data type using singly linked list and use this ADT for conversion of infix expression to postfix.

5. Implement stack as an abstract data type using singly linked list and use this ADT for evaluation of postfix expression.

6. Implement Circular Queue using Circular Linked List. Perform following operations on it. a) Insertion (Enqueue) b) Deletion (Dequeue) c) Display

7. Construct an Expression Tree from postfix and prefix expression. Perform recursive In-order, pre-order and post-order traversals.

8. Implement binary search tree and perform following operations: a)Insert b)Search c)Display-Depth of tree d)Display leaf node

9. **Represent** a graph of your college campus using adjacency list /adjacency matrix. Nodes should represent the various departments/institutes and links should represent the distance between them. Find minimum spanning tree using a) Using Prim’s algorithm.

10. **Represent** a graph of city using adjacency matrix /adjacency list. Nodes should represent the various landmarks and links should represent the distance between them. Find the shortest path using Dijkstra's algorithm from single source to all destination.

11. Implement Heap sort to sort given set of values using max or min heap.

12. Department maintains student’s database. The file contains roll number, name, division and address. Write a program to create a sequential file to store and maintain student data, allow add, search and display data operations.