L. D. COLLEGE OF ENGINEERING – AHMEDABAD
COMPUTER ENGINEERING DEPARTMENT

Bachelor of Engineering
Semester – III
Subject Name: Data Structures
Subject Code: 3130702

List of practical

Sr. No	Practical	Hours
1	a) Introduction to pointers. Call by Value and Call by reference. b) Introduction to Dynamic Memory Allocation. DMA functions malloc(), calloc(), free() etc.	2
2	Implement a program for stack that performs following operations using array. (a) PUSH (b) POP (c) PEEP (d) CHANGE (e) DISPLAY	2
3	Write a program to implement QUEUE using arrays that performs following operations (a) INSERT (b) DELETE (c) DISPLAY	2
4	Write a program to implement Circular Queue using arrays that performs following operations. (a) INSERT (b) DELETE (c) DISPLAY	2
5	Implement a program to convert infix notation to postfix notation using stack.	2
6	Write a menu driven program to implement following operations on the singly linked list. (a) Insert a node at the front of the linked list. (b) Insert a node at the end of the linked list. (c) Insert a node such that linked list is in ascending order. (according to info. Field) (d) Delete a first node of the linked list. (e) Delete a node before specified position. (f) Delete a node after specified position.	2
7	Write a program to implement stack using linked list.	2
8	Write a program to implement queue using linked list.	2

9	Write a program to implement following operations on the doubly linked list. (a) Insert a node at the front of the linked list. (b) Insert a node at the end of the linked list. (c) Delete a last node of the linked list. (d) Delete a node before specified position.	2
10	Write a program to implement following operations on the circular linked list. (a) Insert a node at the end of the linked list. (b) Insert a node before specified position. (c) Delete a first node of the linked list. (d) Delete a node after specified position.	2

11	Write a program which create binary search tree.	2
12	Implement recursive and non-recursive tree traversing methods inorder, preorder and post-order traversal.	2
13	a) Write a program to implement Queue Sort b) Write a program to implement Merge Sort	2
14	a) Write a program to implement Bubble Sort b) Write a program to implement Binary Search.	2