Andhra Pradesh State Council of Higher Education
M.Sc. Computer Science Syllabus
MCS106: Data Structures Lab Using C
Lab cycle

1. Program for Sorting 'n' elements Using bubble sort technique.
2. Sort given elements using Selection Sort.
3. Sort given elements using Insertion Sort.
4. Sort given elements using Merge Sort.
5. Sort given elements using Quick Sort.
6. Implement the following operations on single linked list.
(i) Creation (ii) Insertion (iii) Deletion (iv) Display
7. Implement the following operations on double linked list.
(i) Creation (ii) Insertion (iii) Deletion (iv) Display
8. Implement the following operations on circular linked list.
(i) Creation (ii) Insertion (iii) Deletion (iv) Display
9. Program for splitting given linked list.
10. Program for traversing the given linked list in reverse order.
11. Merge two given linked lists.
12. Create a linked list to store the names of colors.
13. Implement Stack Operations Using Arrays.
14. Implement Stack Operations Using Linked List.
15. Implement Queue Operations Using Arrays.
16. Implement Queue Operations Using Linked List.
17. Implement Operations on Circular Queue.
18. Construct and implement operations on Priority Queue.
19. Implement Operations on double ended Queue.
20. Converting infix expression to postfix expression by using stack.
21. Write program to evaluate post fix expression.
22. Implement Operations on two way stack.
23. Add two polynomials using Linked List.
24. Multiply Two polynomials using Linked List.
25. Construct BST and implement traversing techniques recursively.
26. Implement preorder traversal on BST non recursively.
27. Implement inorder traversal on BST non recursively.
28. Implement postorder traversal on BST non recursively.

29. To Convert matrix into sparse matrix.
30. Implement binary search techniques recursively.
31. Program to implement graph traversing techniques DFS AND DFS.
32. Program to estimate shortest path for a graph.