

<b>COURSE TITLE</b>	<b>:</b>	<b>DATA STRUCTURES LAB</b>
<b>COURSE CODE</b>	<b>:</b>	<b>342</b>
<b>COURSE CATEGORY</b>	<b>:</b>	<b>B</b>
<b>PERIODS PER WEEK</b>	<b>:</b>	<b>6</b>
<b>PERIODS PER SEMESTER</b>	<b>:</b>	<b>108</b>
<b>CREDITS</b>	<b>:</b>	<b>3</b>

### **EXPERIMENTS**

1. Implement Stack using arrays
2. Implement Linked Stack
3. Implement an algorithm to convert infix to postfix expression
4. Convert decimal number to its binary equivalent using stack
5. Implement a linear queue
6. Implement a linked queue
7. Implement a Circular queue
8. Create a linked list and do the following operations – insertion, deletion, search and traverse
9. Implement an algorithm to store a polynomial using linked list and perform addition
10. Implement an algorithm to create a binary search tree and perform following operations – insertion, deletion, search, pre-order, in-order and post-order traversals
11. Implement an algorithm to find height of a tree
12. Implement an algorithm for determining number of nodes in a tree
13. Implement BFS algorithm for traversing a graph
14. Implement DFS algorithm for traversing a graph
15. Implement Warshall's algorithm to find the shortest path
16. Implement Quick sort algorithm