ANURAG ENGINEERING COLLEGE

(An Autonomous Institution)

II Year B. Tech. CSE - I Sem	**L**	**T / P / D**	**C**
	0	**2**	**1**

(CS308PC) DATA STRUCTURES & OBJECT ORIENTED PROGRAMMING LAB

Prerequisites:

1. Any programming language

Co-Requisite:

1. Course on “Data structures.”

PART- A

1. Program to evaluate postfix notations
2. Program to convert infix to postfix notation
3. Program to implement a) Stack using linked lists b) queue using linked lists
4. Program to illustrate tree traversals
   - **a)** In order
   - **b)** Preorder
   - **c)** Post order
5. Program to illustrate insertion, deletion and searching in Binary Search Tree.
6. Program to illustrate Graph traversals
   - **a)** Breadth First Search
   - **b)** Depth First Search
7. Program to illustrate Insertion, deletion and Rotation on AVL Trees.
8. Program to implement sorting techniques a) Merge Sort b) Selection Sort.

PART- B

1. Program to illustrate Function Overloading to calculate area of a circle, rectangle and square
2. Program to illustrate inline functions, default arguments.
3. Program to illustrate default constructor, parameterized constructor and copy constructors.
4. Program to illustrate Operator Overloading
   - **a)** Unary Operator
   - **b)** Binary Operator
   - **c)** << and >> operators using friend function.
5. Program to illustrate single Inheritance, multiple inheritance, multilevel inheritance, hybrid inheritance.
6. Program to illustrate compile time polymorphism and run time polymorphism.
7. Program to illustrate
   - **a)** Exception Handling Mechanisms using try, catch, throw keywords
   - **b)** function template
   - **c)** class template.
8. Program to illustrate formatted and unformatted I/O streams.

CO-PO Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO 1	✓	✓	✓	✓						✓	✓	✓
CO 2	✓	✓	✓	✓		✓				✓	✓	✓
CO 3	✓	✓	✓	✓		✓				✓	✓	✓
CO 4	✓	✓	✓	✓	✓		✓			✓	✓	✓
CO 5	✓	✓		✓	✓							
CO 6	✓	✓		✓	✓							