



**BIT 232**

**DATA STRUCTURES LABORATORY**

**Course Objectives:**

1. To design, analyze, and implement basic data structures and algorithms.
2. To implement data structures such as Trees, Threaded Binary Trees, Heaps, graph operations and algorithms.
3. To familiarize with advanced tree structures like AVL, Splay, m-way, B-Trees.

**List of Experiments:**

1. Implementation of Array ADT
2. Implementation of String ADT
3. Implementation of Stacks & queues.
4. Infix to postfix conversion, evaluation of postfix expression.
5. Polynomial arithmetic using linked list.
6. Implementation of binary search and hashing.
7. Implementation of selection, quick sort, shell sort, Merge sort.
8. Implementation of tree traversals on Binary Trees.
9. Implementation of Heap Sort.
10. Implementation of operations on AVL trees
12. Implementation of Traversal on Graphs
13. Implementation of Splay Trees