JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

III Year – I Semester		L	T	P	C
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DATA STRUCTURES USING JAVA LAB					

1. Write Java programs that use both recursive and non-recursive functions for implementing the following searching methods:
   (a) Linear search
   (b) Binary search
2. Write Java programs to implement the List ADT using arrays and linked lists.
3. Write Java programs to implement the following using an array.
   (a) Stack ADT
   (b) Queue ADT
4. Write a java program that reads an infix expression, converts the expression to postfix form and then evaluates the postfix expression (use stack ADT).
5. Write Java programs to implement the following using a singly linked list.
   (a) Stack ADT
   (b) Queue ADT
6. Write Java programs to implement the deque (double ended queue) ADT using
   (a) Array
   (b) Doubly linked list.
7. Write a Java program to implement priority queue ADT.
8. Write Java programs that use recursive and non-recursive functions to traverse the given binary tree in
   (a) Preorder
   (b) In order and
   (c) Post order.
9. Write a Java program that displays node values in a level order traversal (Traverse the tree one level at a time, starting at the root node) for a binary tree.
10. Write a Java program that uses recursive functions.
    (a) To create a binary search tree.
    (b) To count the number of leaf nodes.
    (c) To copy the above binary search tree.
11. Write Java programs for the implementation of bfs and dfs for a given graph.
12. Write Java programs for implementing the following sorting methods:
    (a) Bubble sort
    (b) Selection sort
    (c) Insertion sort
    (d) Radix sort
13. Write a Java program for implementing KMP pattern matching algorithm.