

**KARPAGAM ACADEMY OF HIGHER EDUCATION**

(Deemed University Established Under Section 3 of UGC Act 1956)

Coimbatore - 641021.

DEPARTMENT OF COMPUTER SCIENCE, CA & IT**SUBJECT : DESIGN AND ANALYSIS OF ALGORITHMS – PRACTICAL****SEMESTER : IV****CLASS : II - B.Sc (CS) A & B****SUB CODE : 17CSU411****L T P C****0 0 4 2****LIST OF PROGRAMS**

1. Implement Insertion Sort (The program should report the number of comparisons) ii. Implement Merge Sort (The program should report the number of comparisons)
2. Implement Heap Sort (The program should report the number of comparisons)
3. Implement Randomized Quick sort (The program should report the number of comparisons)
4. Implement Radix Sort
5. Create a Red-Black Tree and perform following operations on it:
 - i. Insert a node
 - ii. Delete a node
 - iii. Search for a number & also report the color of the node containing this number.
6. Write a program to determine the LCS of two given sequences
7. Implement Breadth-First Search in a graph
8. Implement Depth-First Search in a graph
9. Write a program to determine the minimum spanning tree of a graph