**Department of CSE**

**Data Structures**

II B.Tech – I Semester

**Assignment # 1**

1. Assume that there is a list {22, 22, 22, 22, 22, 22, 22}. What happens when Selection sort is applied on the list? Explain.
2. Sort the following list of names using Insertion sort: Varun, Amar, Karthik, Ramesh, Bhuvan, Dinesh, Firoz, and Ganesh.
3. Sort the following numbers using Quick Sort: 67, 54, 9, 21, 12, 65, 56, 43, 34, 79, 70 and 45.
4. Implement Linear Search & Binary Search using Recursion.
5. Explain, in brief, the various factors that determine the selection of an algorithm to solve a computational problem.