Lab 10 -(26.10.2022)

Evaluation

Observation – 5 marks
Execution – 15 marks
Spot – 5 marks

Observation

1. List all sorting and searching algorithms

2. Differentiate quick sort and merge sort

3. Analyse quick sort and merge sort by master theorem

4. Analyse Linear Search and Binary Search by Master theorem.

5. Write the recurrence relation for

   a. Quick sort

   b. Merge Sort

   c. Linear Search

   d. Binary Search

Execution – 15 marks

6. .Implement and analyze Quick sort algorithm for the following array {52, 37, 63, 14, 17, 8, 6, 25}

7. Implement analyze merge sort algorithm for the same array

SPOT – 5 marks

1. .Show that the complexity of mergesort algorithm is O(NlogN) by using recurrence relations

2. Given an array e.g. 17, 23, 10, 1, 7, 16, 9, 20, sort it on paper by using mergesort. Write down each step.