

Silicon Institute of Technology, Bhubaneswar

B. Tech. 2nd Semester, Section – B

DSA Lab Assignment : #11 (Sorting Algorithms, Graph Algorithms)

Date: 27 – 06 - 2022

Name of the Student:

Registration Number:

1. Write program in C to sort a given set of integers using Quick Sort Algorithm.
2. Write program in C to sort a given set of integers using Merge Sort Algorithm.
3. Write program in C to sort a given set of integers using Radix Sort Algorithm. **(Beyond syllabus)**
4. Write program in C to sort a given set of integers using Heap Sort Algorithm. **(Beyond syllabus)**
5. Write a program in C to traverse the nodes of a graph using Breadth First Search (BFS).
6. Write a program in C to traverse the nodes of a graph using Depth First Search (DFS).
7. Write a program in C to compute the shortest path between source and destination node using Floyd-Warshall's Algorithm. **(Beyond syllabus)**
8. Write a program in C to determine the shortest path between a single source to any destination node using Dijkstra's Algorithm. **(Beyond syllabus)**
9. Write a program in C to add two polynomials using linked list.
10. Create a mini project with multifile system by segregating all the searching and sorting algorithms and create a text based interface to search or sort any given data set as per the demand of the client.
(Desired)

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