



भारतीय सूचना प्रौद्योगिकी संस्थान गुवाहाटी
INDIAN INSTITUTE OF INFORMATION TECHNOLOGY GUWAHATI

Data Structure Lab, B.Tech 2nd Semester

Instructions

1. After completion, you can share the files in mail to g1.ds.lab.iiitg@gmail.com.
2. Deadline to submit is 21st June 2022.

Assignment -8

1. Let A and B be two arrays of n elements each. Given a number K, write a C program that determine whether there exists $a \in A$ and $b \in B$ such that $a + b = K$ in $O(n \log n)$ time.
2. Consider the following array:
10,2,3,1,56,48,24,79,11,90,35,23,36,78
Write a C program to find out among Merge sort, Quick sort, Insertion sort, Selection sort, and Bubble sort algorithms, which one needs the minimum number of swaps?
3. Write a C program that find the number that appeared the maximum number of times in an array in $O(n \log n)$ time.