

INDIAN STATISTICAL INSTITUTE
B.Stat – 3 rd Year, 2018-2019 (Semester -I)
Design and Analysis of Algorithms
Assignment-2: Programming Assignment

Problems:

1. Write a C/ C++ program to sort an array with n numbers using the following algorithms:

- Merge Sort
- Quick Sort
- Heap Sort

Vary n from small to large values (for each value of n check 20 to 25 times and take the average). For example you can take the values of n as 50,100,200,500,1000,5000. Generate separate plots using n as the x-axis and number of comparisons in the y-axis (time in the y -axis for the second plot) . For each n, generate the inputs randomly.

Submission:-

You have to submit the assignments by e-mail to algo 2018bstat3 @gmail.com by 16.08.2018. The subject line of the e-mail should be Assignment 2. Your file name should be your roll number. As an example if your roll number is BS16XX then your file name should be bs16xx.c/cpp.

Note 1:- Implementations need to be in C/C++.

Note 2 :- If copying is detected all the persons involved would be penalized. The degree of the penalty may even exceed the total marks allotted for assignments.