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

**Problems**:

Q1. Write a C/C++ program to compute the convex hull given n points in the plane using the following algorithms:
1. Graham's Scan
2. Jarvis's March                                                              (20 marks)

Q2. Vary n from small to large values. For example you can take the values of n as 50,100,200,500,1000,5000 (note that you can increase the value of n.). Plot a comparison graph using n as the x-axis and time in the y-axis and write your conclusion after plotting the graph. For each n, generate the points randomly.                                          (10 marks)

**Submission :-**

You have to submit the assignments by e-mail to algo 2018bstat3 @gmail.com by 1.10.2018. The subject line of the e-mail should be Assignment 3. 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:- Please make your n as user input.

Note 3:- Please name your file as bs16xx.c/cpp (Don't put any capitals/spaces/underscore in the file name).

Note 4:- Please clearly mention your output while executing your code.

Note 5 : - 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 .