## INDIAN STATISTICAL INSTITUTE B.Stat – 3 rd Year, 2018-2019 (Semester -I) Design and Analysis of Algorithms Assignment-4: Programming Assignment

## **Problems**:

Q1. Write a C/C++ code to check whether a graph G=(V,E) contains a cycle or not using non-recursive Depth-First Search. (20 marks)

## **Submission:**

You have to submit the assignments by e-mail to algo 2018bstat3 @gmail.com by 10.10.2018. The subject line of the e-mail should be Assignment 4. 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 (number of nodes) 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:- Implement the stack using an array.

Note 6 : - 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.