**CLL:113-Tut-2(7.8.19)**

***Gauss Elimination:***

***Naïve Gauss Elimination:***

1. (a) Write a general computer program in C/C++ to solve a set of n linear equations using Naïve Gauss elimination without any pivoting.
2. Use the program to solve the following equations

10x1 + 2x2 − x3 = 27

− 3x1 − 6x2 + 2x3 = −61.5

x1 + x2 + 5x3 = −21.5

1. Write in the same program a subroutine to check your results by substituting your results into the original equations.

***With Partial Pivoting:***

1. (a) In the above general program use a subroutine to insert partial pivoting at each step of Gauss elimination.
2. With the new program solve the following set of equations.

− 3x2 + 7x3 = 2

x1 + 2x2 − x3 = 3

5x1 − 2x2 = 2

(c) Check your results