

COMPUTATIONAL MATHS (SCSI 1113)
Programming Assignment

DUE DATE : 30 April 2019

Question 1

Given

$$2x + 4y - z = 2$$

$$4x + 9y - 3z = 8$$

$$-2x - 3y + 7z = 10$$

Write a program to solve the linear system above using Gauss- Elimination.

Question 2

Let $f(x) = x^3 - 6x^2 + 11x - 6$,

Write a program to

- i) Check whether the root exist in the interval:
 - a) [1.5, 5.0]
 - b) [2.5, 4.0]
- ii) Based on interval found in 4(i), find the root using Bisection method.

Do your calculation in 4 decimal points and $\xi = 0.0001$.

Programming language: C or C++