Assignment #2

Q NO: 1
$$x_1 + 3x_2 + 5x_3 - 4x_4 = 1$$
$$x_1 + 3x_2 + x_3 - 2x_4 + x_5 = -1$$
$$x_1 - 2x_2 + x_3 - x_4 - x_5 = 3$$
$$x_1 - 4x_2 + x_3 + x_4 - x_5 = 3$$
$$x_1 + 2x_2 + x_3 - x_4 + x_5 = -1$$

(i) Solve it by Gauss elimination method. and also by Gauss Jordon Method and
(ii) Solve it by inverse method $X = A^{-1}B$

Q NO: 2 Solve The System by Cramer's Rule

(i)
$$x_1 + x_2 + x_3 + x_4 = 6$$
$$2x_1 - x_3 - x_4 = 4$$
$$3x_3 + 6x_4 = 3$$
$$x_1 - x_4 = 5$$

(ii)
$$\begin{vmatrix} 1 & x & x^2 & x^3 \\ 1 & 2 & 2^2 & 2^3 \\ 1 & 3 & 3^2 & 3^3 \\ 1 & 4 & 4^2 & 4^3 \end{vmatrix} = 0$$

Solve it for finding the values of x.