

$$\text{Q.1 } A = \begin{bmatrix} 1 & 3 & 5 \\ -1 & 4 & 12 \\ 2 & 6 & -5 \end{bmatrix}, B = \begin{bmatrix} 12 & 8 & 5 \\ -1 & 4 & 11 \\ 4 & 10 & -2 \end{bmatrix},$$

a) Find  $A+B$ ,  $A-B$ ,  $A*B$ ,  $A^T B$ ,  $A^{-1}$

b) Find Eigen value of A and B matrices.

$$\text{Q.2 } -x - 11y - 3z = -37$$

$$x + y = -1$$

$$2x + 5y + z = 10$$

Solve for X,  $AX=B$ .