Linear Algebra
Mid Assignment

Question No: 1

Solve the system of equations that corresponds to this augmented Matrix

$$\begin{bmatrix} 1 & -3 & 4 & -ID2 \\ 3 & -7 & 7 & -ID4 \\ -4 & 6 & -1 & ID3 \end{bmatrix}$$

Question No: 2

a) Find Inverse of a Matrix

$$\begin{bmatrix} ID3 & -1 & 0 \\ 0 & 1 & ID3 \\ 1 & 1 & 0 \end{bmatrix}$$

b) Find an echelon form for the below matrix using row operations

$$\begin{bmatrix} 1 & ID3 & 8 \\ 2 & ID4 & -1 \\ -3 & 0 & 0 \\ 1 & -ID3 & 16 \end{bmatrix}$$

Question No: 3

Find the Eigen values and Eigen vectors of the below Matrix

$$\begin{bmatrix} ID3 & -6 & 2 \\ -6 & ID2 & -4 \\ 2 & -4 & ID4 \end{bmatrix}$$