Math 302 – 02 Quiz 2 (B)

Name:.....Serial#:.....

Q.1: Write the following system of linear equations into matrix form as $AX = B$. Write the augmented matrix, reduce it into echilon form and write the solution. Show all calculations clearly to et full marks.

$$\begin{aligned} x_1 + 3x_2 - x_4 &= -8 \\ 2x_1 + 6x_2 - 4x_3 + 4x_4 &= 4 \\ x_1 - x_3 - 9x_4 &= -35 \\ x_2 + 3x_4 &= 10 \end{aligned}$$

Q.2: Find the general solution of the system and write it as a column matrix or sum of column matrices

$$\begin{gathered} 8x_1 - 2x_3 + x_6 = 0 \\ 2x_1 - x_2 + 3x_4 - x_6 = 0 \\ x_2 + x_3 + -2x_5 - x_6 = 0 \\ x_4 - 3x_5 + 2x_6 = 0 \end{gathered}$$