Name: _____

Student ID: _____

Quiz 2

This quiz is graded out of 10 marks. No books, calculators, notes or cell phones are allowed. You must show all your work, the correct answer is worth 1 mark the remaining marks are given for the work. If you need more space for your answer use the back of the page.

Question 1. §1.2 #2d *(2 marks)* Determine whether the matrix is in row echelon form, reduced row echelon form, both, or neither.

$$\begin{bmatrix} 1 & 5 & -3 \\ 0 & 1 & 1 \\ 0 & 0 & 0 \end{bmatrix}$$

Question 2. §1.2 #3d *(2 marks)* Suppose that the augmented matrix for a system of linear equations has been reduced by row operations to the given row echelon form. Solve the system.

$$\begin{bmatrix} 1 & -3 & 7 & 1 \\ 0 & 1 & 4 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

Question 3. §1.2 #23 *(6 marks)* Solve the given linear system by any method.

$$
\begin{array}{rcrcrcrcr}
2I_1 & - & I_2 & + & 3I_3 & + & 4I_4 & = & 9 \\
I_1 & & & - & 2I_3 & + & 7I_4 & = & 11 \\
3I_1 & - & 3I_2 & + & I_3 & + & 5I_4 & = & 8 \\
2I_1 & + & I_2 & + & 4I_3 & + & 4I_4 & = & 10
\end{array}
$$