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. Consider the matrix:

$$A = \begin{bmatrix} 2 & 3 \\ 4 & 0 \end{bmatrix}$$

a. *(3 marks)* Compute $A^2 - 2A + I$.

b. *(4 marks)* Verify that $(A^t)^{-1} = (A^{-1})^t$.

Question 2.*(3 marks)* Solve the following system by Gaussian elimination or Gauss-Jordan elimination.

$$\begin{array}{rcrcrcr} 3x_1 & - & x_2 & + & 2x_3 & = & -2 \\ 4x_1 & + & x_2 & - & 3x_3 & = & 5 \\ 10x_1 & - & x_2 & + & x_3 & = & 2 \end{array}$$