

Name: _____
Student ID: _____

Bonus Assignment 1

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. (5 marks) Use Cramer's rule solve the following system

$$\begin{array}{rclclcl} x_1 & & & & & = & 0 \\ 2x_1 & + & 2x_2 & & & = & 1 \quad . \\ 3x_1 & - & x_2 & - & 3x_3 & = & 2 \end{array}$$

Question 2. (5 marks) Use the adjoint to find the inverse of the following matrix

$$B = \begin{bmatrix} 2 & 3 & 0 \\ 4 & 5 & 0 \\ 0 & 0 & 1 \end{bmatrix}.$$