Name: _____

Student ID: _____

Quiz 1

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 matrices:

$$A = \begin{bmatrix} 1 & 4 & -1 \\ 2 & 0 & 0 \\ 0 & 3 & 3 \end{bmatrix}, \quad B = \begin{bmatrix} 1 & -1 & 6 \\ 3 & 0 & 7 \\ 2 & 11 & 1 \end{bmatrix}, \quad C = \begin{bmatrix} 2 & -1 \\ 1 & 2 \\ 0 & 4 \end{bmatrix}, \quad D = \begin{bmatrix} 3 & 0 & 1 \\ 2 & -1 & 2 \end{bmatrix}.$$

Compute the following *(where possible)*.

a. *(1 mark)* $B - A$

b. *(1 mark)* $D - C$

c. *(1 mark)* BD

d. *(3 marks)* $3\,\mathrm{tr}(2CC^t)$

e. *(4 marks)* $CD + I - A^2$