

Last Name: _____

First Name: _____

Student ID: _____

Quiz 5 (A)

Question 1. (3 marks) Let:

$$A = \begin{bmatrix} 4 & -1 & 2 \\ 5 & 0 & -2 \\ 4 & 1 & 1 \end{bmatrix}$$

Find C_{23} .

Question 2. (3 marks) Find the following determinants (justify your answer):

$$\text{(a) } A = \begin{bmatrix} 2 & 6 & 0 & -2 \\ 3 & -2 & 3 & 0 \\ 1 & 3 & 0 & -1 \\ 4 & 0 & 1 & 0 \end{bmatrix} \quad \text{(b) } B = \begin{bmatrix} 2 & 0 & 0 & 0 \\ 31 & -2 & 0 & 0 \\ 0 & 3 & 1 & 0 \\ 7 & 0 & 1 & -3 \end{bmatrix} \quad \text{(c) } C = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 \\ 0 & 0 & 1 & 0 \\ 0 & 1 & 0 & 0 \end{bmatrix}$$

Question 2. (4 marks) Find the following determinant:

$$\det \begin{bmatrix} 2 & 1 & 0 & 1 \\ 1 & -2 & 1 & 0 \\ 2 & -1 & 0 & 3 \\ 0 & 2 & 0 & 1 \end{bmatrix}$$