

Last Name: _____

First Name: _____

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Quiz 5 (B)

Question 1. (3 marks) Let:

$$A = \begin{bmatrix} 4 & -1 & 1 \\ 1 & 3 & -2 \\ 4 & 1 & 0 \end{bmatrix}$$

Find C_{32} .

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

$$(a) A = \begin{bmatrix} 2 & 0 & 8 & -6 \\ 3 & -3 & 1 & 3 \\ 1 & 0 & 1 & -1 \\ 1 & 0 & 4 & -3 \end{bmatrix} \quad (b) B = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & -3 & 0 & 0 \\ 2 & 0 & 5 & 0 \\ 22 & -1 & 1 & 2 \end{bmatrix} \quad (c) C = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

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

$$\det \begin{bmatrix} 1 & 2 & 0 & 1 \\ 3 & -2 & 1 & 0 \\ 3 & -1 & 0 & 1 \\ 0 & 1 & 0 & 4 \end{bmatrix}$$