Name: Date: 3/22/2018

M20580 L.A. and D.E. Tutorial
Quiz 6

1. Suppose 0 is an eigenvalue of the matrix A. Which of the following statements MUST be true? (Circle ALL that apply)

    1. A is invertible.

    2. The determinant of A is zero.

    3. The columns of A are linearly dependent.

    4. There are an infinite number of solutions to the system $Ax = 0$.

    5. The trace of A is 0.

2. The matrix $A = \begin{bmatrix} 3 & -2 \\ 1 & 1 \end{bmatrix}$ Find a COMPLEX Eigenvector of A.