Quiz No: 4

Name:_____ ID_____ Section_____ Marks: 8

Q1. Without solving tell for what value of 'a' the system given by
$x + y - z = 2, \quad x + 2y + z = 3, \quad x + y + (a^2 - 5)z = a$ has a 'no' solution.

Q2. Use elementary row operations to solve the system
$x_1 - x_2 + x_3 - x_4 = 2, \quad x_1 - x_2 + x_3 + x_4 = 0, \quad 4x_1 - 4x_2 + 4x_3 = 4, -2x_1 + 2x_2 - 2x_3 + x_4 = -3$.
Write solution in vector notation.

Q3. Express the vector $(1, 2)$ as a linear combination of $(-2, 3)$ and $(5, 2)$.

Q4. V is a set of all vectors (x, y, z) such that $x + y + 2z = 0$. Is this set a sub-space?