1. Use of cell phones is NOT allowed.
2. Answers without supporting work will NOT be given credit.
3. You have **20 minutes** to complete this quiz.

**Name:**

**Serial:**

1. Solve the following **IVP**

$$\frac{dy}{dx} - 2 = \sqrt{y - 2x + 3}$$

$$y(-2) = 2$$

2. Solve the following differential equation

$$x^2 \frac{dy}{dx} = 2xy + 3y^4$$

3. Solve the following differential equation

$$(xy + y^2 + y)dx + (x^2 + 3xy + 2x)dy = 0$$

**Dr. Khalid Alanezy**