King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math 202 (153) Sec - Quiz 2

Name: ID: Serial No.:

1. Solve: $(3x^2y + e^y)dx + (x^3 + xe^y - 2y)dy = 0$

2. Find an integrating factor to convert the differential equation into EXACT differential equation

$$6xydx + (4y + 9x^2)dy = 0.$$

3. Convert the DE into linear DE (Do not solve the new equation)

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

4. Convert the DE into separable DE (Do not solve the new equation)

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