King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math 260 – Term 172 – Quiz 3

Name:

Student ID #:

Question 1. Find the general solution of $y^{(3)} - y' = xe^x$.

QUESTION 2 IS ON THE BACK OF THE PAGE.

Question 3. Find, using the variation of parameters method, a particular solution of $x^2y'' - 2xy' + 2y = x^{9/2}$ given that $y_1 = x$ and $y_2 = x^2$ are solutions of the homogenous part of the differential equation. Then find a general solution.