KFUPM – Department of Mathematics and Statistics – Term 162 MATH 202 QUIZ # 3 Code 1 (Duration = 20 minutes)

NAME:______ ID:_____ Section: _____

Exercise 1 (5 points) Solve the differential equation $y''-y = 2 \sinh x$

Exercise 2 (5 points) Solve the differential equation $x^2 y'' - xy' = x^3$ if $y_1 = 1$ is one solution of the homogeneous associated equation.

KFUPM – Department of Mathematics and Statistics – Term 162 MATH 202 QUIZ # 3 Code 2 (Duration = 20 minutes)

NAME:______ ID:_____ Section: _____

Exercise 1 (5 points) Solve the differential equation $y''-y = 2\cosh x$

Exercise 2 (5 points) Solve the differential equation $x^2 y'' - xy' = x^3$ if $y_1 = \frac{x^2}{2}$ is one solution of the homogeneous associated equation.