KFUPM – Department of Mathematics and Statistics – Term 172

MATH 202

QUIZ # 3 Code 1 (Duration = 20 minutes)

NAME:_____ ID:_____ Section: _____

Exercise 1 (5 points)

Solve the differential equation #

$$y'' + 3y' + 2y = x + e^{x} sin3x$$

Exercise 2 (5 points) Find a homogeneous differential equation with constant coefficients whose solution is

$$c_1 e^{x} + c_2 x e^{x} + c_3 cosx + c_4 sinx$$

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QUIZ # 3 Code 2 (Duration = 20 minutes)

NAME:_____ ID:_____ Section: _____

Exercise 1 (5 points)

Solve the differential equation #

$$y'' - 3y' + 2y = x + e^x \cos 3x$$

Exercise 2 (5 points) Find a homogeneous differential equation with constant coefficients whose solution is#

$$c_1 + c_2 x + c_3 \sin x + c_4 \cos x$$