

NAME: \_\_\_\_\_

ID: \_\_\_\_\_ Section: \_\_\_\_\_

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**Exercise 1** (6 points)

Solve the differential equation  $y''' - 3y'' + 4y' - 2y = e^x$  [**Do not find the Constants for  $y_p$** ].

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**Exercise 2** (4 points)

Find the homogeneous differential equation whose solution is  $[c_1 + c_2 \cos x + c_3 \sin x]e^x$ .

KFUPM – Department of Mathematics and Statistics – Term 121

**MATH 260**

**QUIZ # 3 Code 2** (Duration = 20 minutes)

NAME: \_\_\_\_\_

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**Exercise 1** (6 points)

Solve the differential equation  $y''' - 6y'' + 9y' - 10y = e^x$  [**Do not find the constants for  $y_p$** ].

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**Exercise 2** (4 points)

Find the homogeneous differential equation whose solution is

$[c_1 + c_2 \cos x + c_3 \sin x]e^{2x}$ .

