

# Quiz 12

Name : \_\_\_\_\_

SID : \_\_\_\_\_

CAUTION. *Minor mistakes can cause much deduction of points.* So, please read each questions carefully and figure out what they want.

1. Solve the initial value problem

$$y'' + 3y' + 2y = -e^{-2t}, \quad y(0) = 2, \quad y'(0) = -2.$$

2. Find a general solution to the following differential equation.

$$\frac{d^2y}{dt^2} + y = 2e^t - 2\sin t$$