國立臺灣海洋大學河海工程學系 2014 工程數學(一) 第六次作業

系級:______ 學號:_____ 姓名:_____

1. 試解:

(1)
$$y'' + 4y' - 2y = 2x^2 - 3x + 6$$

- (2) $y'' + 9y = 3 + 2e^x + \sin x$
- 2. 試解:

(1)
$$y''' - 4y'' - 7y' + 10y = 3x - e^x$$

- (2) $2y''' + 8y'' + 170y' = 270x \cdot e^x$
- 3. 試解: $y'' + 2y' + y = 3e^{-x}$
- 4. 試解: $x'' + 4x = 2\cos 3t + 3\sin t$; x(0) = 3, x'(0) = 2
- 5. 試解: $y'' 3y' + 2y = 3e^{2x} + 2x^2 7$ & y(0) = 1, y'(0) = 0