班級：_____學號：_____姓名：_____

國立台灣海洋大學河海工程研究所 BEM 第 2 次作業(2006)

Rewrite the SDOF second order ODE to integral equation.

Given

$$y''(t) + 2\xi\omega y'(t) + \omega^2 y(t) = 0$$

Subject to

$$y(0) = y_0, y'(0) = v_0$$

Classify the integral equation.

First kind second kind ?

Fredoholm or Volterra form ?

Kernel symmetry or not symmetry ?

Kernel singular or regular ?