

EEE 225 - Engineering Mathematics I
(Differential Equations)
Homework 6

31st Nov, 2022

1. Solve

$$\frac{d^2y}{dt^2} + 5\frac{dy}{dt} + 6y = 4e^{-t}, \quad y(0) = 0, \quad \dot{y}(0) = 0 \quad (1)$$

2. Find the steady-state solution to

$$\frac{d^2y}{dt^2} + 3\frac{dy}{dt} + 4y = 5te^{2t} \quad (2)$$