North South University
Mat-350, Sec- 8, Fall-2021
Quiz-3, Total Marks-15, Time-25 mins

Name: _____   Id# _____   Date# 23/12/2021

Q1. Solve the following differential equation

$$y'' - 4y' + 4y = e^{kt}t^k \quad y(0) = 0, \quad y'(0) = 0 .$$

by using Laplace Transform. Hence verify your answer.

(Where $k \neq 0$ is the 7th digit of your student Id# . If $k = 0$ then choose $k = 1$.)