

CE 301
NUMERICAL METHODS IN ENGINEERING

Summer 2020-2021 – Section B

ASSIGNMENT #3 (Computer)

Due Date: 04.08.2021

Question:

Solve the equation below

$$f(x) = \exp(2x)\sin(x) - 3x\cos(2x)$$

by using *Newton's method* until satisfying the tolerance limits of the followings;

- i. $\varepsilon = 0.001$
- ii. $\varepsilon = 0.0001$
- iii. $\varepsilon = 0.00001$

Note: You can make use of any software like MATLAB, Python, Excel etc.