

**CE 301**  
**NUMERICAL METHODS IN ENGINEERING**

**Summer 2020-2021 – Section B**

**ASSIGNMENT #4 (Computer)**

**Due Date:09.09.2021**

**Question:**

Solve the initial value problem below by *Modified Euler Method* for  $h=0.0001$  (step size).

$$dy/dx = 0.5(1+x) y^2$$

**Initial Condition:**  $y(x_0=0) = 2$

**Domain:**  $0 < x < 0.2$

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