ANURAG GROUP OF INSTITUTIONS

Autonomous

School of Engineering

II-B.Tech -I- Semester (2018-19)

ASSIGNMENT-1

M3 ASSIGNMENT QUESTIONS

(Common to Civil Chemical and Mech II year)

1) Find a Real root of the equation $xe^x = 1$ using Bisection method.
2) Find a Real root of the equation $x \log x_{10} - 1.2 = 0$ using Regula-Falsi method.
3) Give the Geometrical interpretation of Newton-Raphson Method and find a Real root of the equation xtanx+1=0
4) Find a positive root of the equation by iteration method x^4-x-10=0
5) Solve the following system of equations using Gauss-Seidel method
   10x+y+z=12, 2x+10y+z=13, 2x+2y+10z=14
6) Solve system of equation using Jacobi Iteration method

   20x+y-2z=17, x+20y-z = -18 , 2x -3y+20z =25
7) Solve the following system by the method of (LU Decomposition)
   x+ y+ z=1, 3x+y-3z=5, x-2y-5z=10
8) The table below gives the values of tanx for 0.10≤x≤0.30

X	0.10	0.15	0.20	0.25	0.30
Y=tanx	0.1003	0.1511	0.2027	0.2553	0.3093

Find (i) tan 0.12 using Newton's forward interpolation