
INDIAN INSTITUTE OF TECHNOLOGY, KHARAGPUR

DEPARTMENT OF MATHEMATICS

MA39110-ANT_LAB ASSIGNMENT -06

1. Write a MATLAB code for solving the following BVP with step length $h=0.05$ by using spline interpolation technique. Also compare the result with exact solution and plot the resultant solution.

$$y'' - y = x, \quad y(0)=0, y(1)=2$$

2. Use Spline interpolation technique for solving the following BVP with step size $h=0.2$. Compare the result with the exact solution. Also plot the resultant solution.

$$y'' + 6y' + 5 = 0$$

$$y(0)=1, y(1)=0$$