

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 $h=0.2$ by using spline interpolation technique. Also compare the result with exact solution and plot the resultant solution.

$$y'' + 5y' + 4y = 1.$$

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

2. Use Spline interpolation technique for solving the following BVP with step size $h=0.1$. Compare the result with the exact solution. Also plot the resultant solution.

$$x^2 y'' + 9xy' + 15y = x^3$$

$$y(1)=0, y(2)=1/3$$