# 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=0.25 by using spline interpolation technique. Also compare the result with exact solution and plot the resultant solution.

$xy'' + y = 0.$    $,y(1)=1 ,y(2)=2$

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.

$x^2 y'' + 6xy' + 6y = 4x$

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