**ASSIGNMENT NO:-**

**PROGRAM NO:-**

%Program: BISECTION METHOD

%Name:

%Roll No.:

%I/P: Function, upper limit,lowerlimit,accuracy

function []=PSJ\_BS(fun,x1,x2,acc)

y1=feval(fun,x1);

y2=feval(fun,x2);

while (y1\*y2)>0

x1=input('Enter value of x1\n');

x2=input('Enter value of x2\n');

y1=feval(fun,x1);

y2=feval(fun,x2);

end

while abs(x1-x2)>acc

x0=(x1+x2)/2;

y0=feval(fun,x0);

if y1\*y0<0

x2=x0;

y2=feval(fun,x0);

else x1=x0;

y1=feval(fun,x0);

end

end

x0=(x1+x2)/2;

fprintf('The root of eqn is %f\n',x0);

% PSJ\_BS(@(x) x^3-2\*x-5,2,3,0.01)

% The root of eqn is 2.097656

% fzero(@(x) x^3-2\*x-5,2)

%

% ans =

%

% 2.0946