**ASSIGNMENT NO:-**

**PROGRAM NO:-**

%Program. GAUSS SEIDEL

%Name:

%Roll No.:

%I/P: Mac iterations, Equations of x,y,z.

function[]=PSJ\_GS(fx1,fx2,fx3,n)

x1=0;

x2=0;

x3=0;

for i=1:1:n;

x1=fx1(x2,x3);

x2=fx2(x1,x3);

x3=fx3(x1,x2);

fprintf('\n Itr.No.=%0.1f x1=%f x2=%f x3=%f',i,x1,x2,x3);

end

fprintf('x1=%f x2=%f x3=%f',x1,x2,x3);

%PSJ\_GS(@(x2,x3)(28-2\*x2+3\*x3)/10,@(x1,x3)(30-3\*x1-3\*x3)/21,@(x1,x2)(25+2\*x1-3\*x2)/15,10)

%Itr.No.=1.0 x1=2.800000 x2=1.028571 x3=1.834286

% Itr.No.=2.0 x1=3.144571 x2=0.717306 x3=1.942482

%Itr.No.=3.0 x1=3.239283 x2=0.688319 x3=1.960907

% Itr.No.=4.0 x1=3.250608 x2=0.684069 x3=1.963267

%Itr.No.=5.0 x1=3.252166 x2=0.683509 x3=1.963587

% Itr.No.=6.0 x1=3.252374 x2=0.683434 x3=1.963630

% Itr.No.=7.0 x1=3.252402 x2=0.683424 x3=1.963635

% Itr.No.=8.0 x1=3.252406 x2=0.683423 x3=1.963636

%Itr.No.=9.0 x1=3.252406 x2=0.683422 x3=1.963636

% Itr.No.=10.0 x1=3.252406 x2=0.683422 x3=1.963636 x1=3.252406 x2=0.683422 x3=1.963636>>