**ASSIGNMENT NO:-**

**PROGRAM NO:-**

%Program: GUASS ELIMINATION

%Name:

%Roll No.:

%I/P: Matrix A & B

a=input('Enter matrix A ');

d=input('Enter matrix D ');

n=length(d);

%Creating upper triangular matrix

for i=1:n

for k=i+1:1:n

f=a(k,i)/a(i,i);

for j=1:n

a(k,j)=a(k,j)-f\*a(i,j);

end

d(k)=d(k)-f\*d(i);

end

end

% Backward Substitution

for i=n:-1:1

temp=d(i);

for j=i+1:n

temp=temp-a(i,j)\*x(j);

end

x(i)=temp/a(i,i);

end

fprintf('x=%f\n',x)

% Enter matrix A [1,3,5;3,2,4;2,1,1]

% Enter matrix D [2;7;4]

% x=2.250000

% x=-1.125000

% x=0.625000

% a\d

% ans =

% 2.2500

% -1.1250

% 0.6250