**Expt 1.1 To Implement simple logic network using Hebb**

clear all;

close all;

clc;

x=[1 1 -1 -1 ; 1 -1 1 -1];

y=[1 1 1 -1];

w=[0 0];

b=0;

for i=1:4

for j=1:2

w(j)=w(j)+y(i)\*x(j,i);

end

b=b+y(i);

end

disp('Final weight matrix')

w

disp('Final bias matrix')

b

x2n=-w(2)/w(1);

intercept=b/w(2)

x2=x2n\*x-intercept

plot(x(1,:),x(2,:),'g\*')

hold on

plot(x,x2)

axis([-4 4 -3 3])

**Output:**

Final weight matrix

w =

2 2

Final bias matrix

b =

2

intercept =

1

x2 =

-2 -2 0 0

-2 0 -2 0

