NNFL Expt. 05

Code:

clc

clear all

close all

p=[1 1 -1 -1;1 -1 1 -1];

t=[1 -1 -1 -1];

alpha=input('Enter the value of alpha: ');

theta=input('Enter the value of theta: ');

w1=rand;

w2=rand;

w=[w1;w2]'

b=0

linehandle=plotpc(w,b);

pause

flag=1;

while(flag==1)

for i=1:4

yin=(p(1,i)\*w1)+(p(2,i)\*w2)+b;

if yin>theta

y=1;

end

if yin<-theta

y=-1;

end

if -theta<=yin && yin<=theta

y=0;

end

if y~=t(i)

w1=w1+(alpha\*t(i)\*p(1,i))

w2=w2+(alpha\*t(i)\*p(2,i))

b=b+(alpha\*t(i))

linehandle=plotpc(w,b,linehandle);

else

flag=0;

end

pause

end

end

**Outputs:**

Enter the value of alpha: 0.1

Enter the value of theta: 0

**Epoch 1:**

w = [0.8003 0.1419]

b = 0



**Epoch 2:**

w1 = 0.7003

w2 = 0.2419

b = -0.1000

