Name –Tejas chinchole

Roll no=L-13

G.R no=142053

Assignment no=5

%a notch filter that filter 50HZ noise

clc;

close all;

clear all;

t=0:0.001:2;

x=cos(2\*pi\*50\*t);

x1=cos(2\*pi\*50\*t);

b=[1 -1.9022 1];

a=[1 -1.8072 0.9025]

y=filter(b,a,x);

w=0:0.01:pi;

h=freqz(b,a,w);

subplot(3,1,2),plot(w/pi,abs(h));

xlabel('time'),ylabel('x(t)')

subplot(3,1,1),plot(t,x);

xlabel('time'),ylabel('magnitude')

subplot(3,1,3),plot(t,y);

xlabel('time'),ylabel('output of the notch filter')