close all;

clear all;

[yy,fs]=audioread('C:\Program Files\MATLAB\MATLAB Production Server\R2015a\bin\work\data\1-11.wav');

yy=yy./(1\*.01\*abs(max(yy)));

yy1=yy(241:400);

N=160;

w=hamming(N);

y=yy1.\*w;

% //computing cepstrum

y11=fft(y);

y1=log(abs(y11));

y2=ifft(y1);

figure;

subplot(2,2,1);

plot(yy1);

xlabel('sample index');

ylabel('amplitude');

title('s(n)');% speech segment with 20msec

subplot(2,2,2);

plot(y);

xlabel('sample index');

ylabel('amplitude');

title('x(n)');%windowed speech segment

subplot(2,2,3);

plot(y1(1:80));%log of |X(W)|

xlabel('sample index');

ylabel('amplitude');

title('log|X(W)|');

subplot(2,2,4);

plot(y2(1:80));%IDFT of log|X(W)| i.e cepstrum

xlabel('sample index');

ylabel('amplitude');

title('c(n)');