%Experiment no-06

%Implementation of decimation & interpolation

clc;

close all;

%Generate the input sequence for Fs=200hz,f1=50hz&f2=100hz

t=0:1/200:10;

y=3.\*cos(2\*pi\*50.\*t/200)+1.\*cos(2\*pi\*100.\*t/200);

subplot(3,1,1);

stem(y);

xlabel('time in sec---->');

ylabel('amplitude ----->');

%%generate the decimated & interpolated signals

subplot(3,1,2)

stem(decimate(y,20));

xlabel('time in sec---->');

ylabel('amplitude ----->');

subplot(3,1,3);

stem(interp(decimate(y,20),2));

xlabel('time in sec---->');

ylabel('amplitude ----->');

