|  |
| --- |
| College Name: - Walchand College of Engineering, Sangli  Year: - Third Year  Name: - Om Ajit Patil  PRN: - 2020BTEEN00058  Subject: - Digital Signal System Lab  Batch: - EN3 |

Code

close all;

clc;

wc = 0.5\*pi; % cutoff frequency

N = 25;

% Tuning parameter = 0.5

b = fir1(N,wc/pi,kaiser(N+1,0.5));

w = 0:0.01:pi;

h = freqz(b,1,w);

plot(w/pi,20\*log10(abs(h)),'g-');

hold on;

% Tuning parameter = 3.5

b = fir1(N,wc/pi,kaiser(N+1,3.5));

w = 0:0.01:pi;

h = freqz(b,1,w);

plot(w/pi,20\*log10(abs(h)),'r-');

hold on;

% Tuning parameter = 8.5

b = fir1(N,wc/pi,kaiser(N+1,8.5));

w = 0:0.01:pi;

h = freqz(b,1,w);

plot(w/pi,20\*log10(abs(h)),'b-');

xlabel('Normalized frequency \omega/\pi');

ylabel('Magnitude in dB');

legend('Tuning parameter 0.5','Tuning Parameter 3.5','Tuning Parameter 8.5');

hold off;

Output

