**NAME :** S . Raahul **DIV/BATCH :** D14B **ROLL NO. :** 55

CODE FOR HAMMING WINDOW FILTER :

clc

clear all

N=7

wc=0.8\*%pi

for n=1:7

if n==4 then

h(n)=0.2\*(0.54-0.46\*cos(2\*%pi\*(n-1)/(N-1)))

else

h(n)=(sin(%pi\*(n-1-3))-sin(wc\*(n-1-3)))\*(0.54-0.46\*cos(2\*%pi\*(n-1)/(N-1)))/(%pi\*(n-1-3))

end,

end

disp("h(n) is : ")

disp(h)

w=[-%pi:0.1:%pi]

A=h(4)+2\*h(3)\*cos(w)+2\*h(2)\*cos(2\*w)+2\*h(1)\*cos(3\*w)

plot(w,A)

**OUTPUT**:

h(n) is :

-0.0080728

0.0469233

-0.1440653

0.2

-0.1440653

0.0469233

-0.0080728

**FREQUENCY RESPONSE**:

