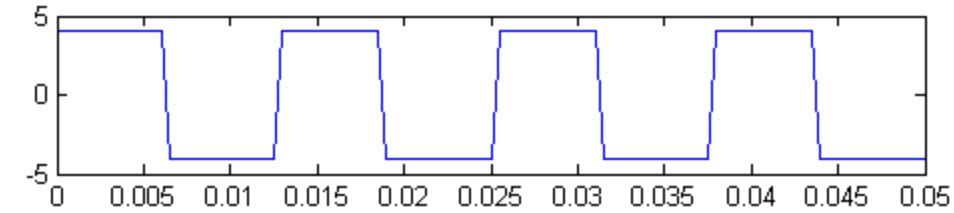
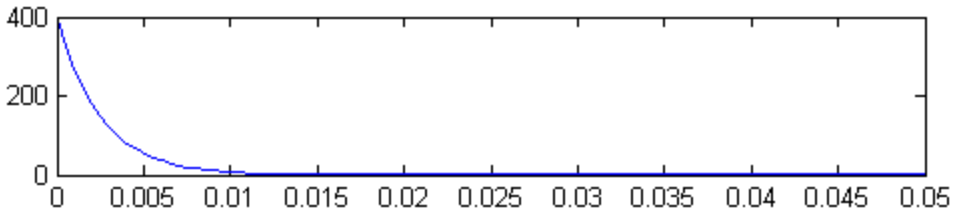
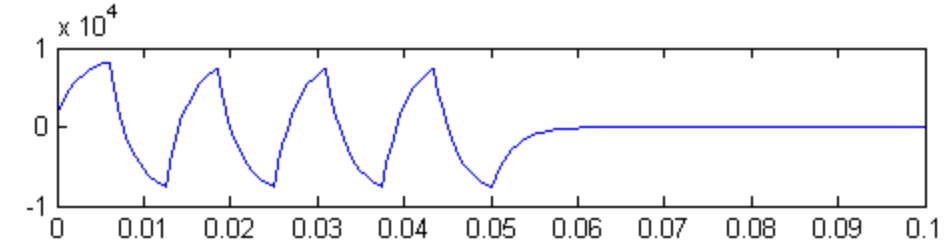
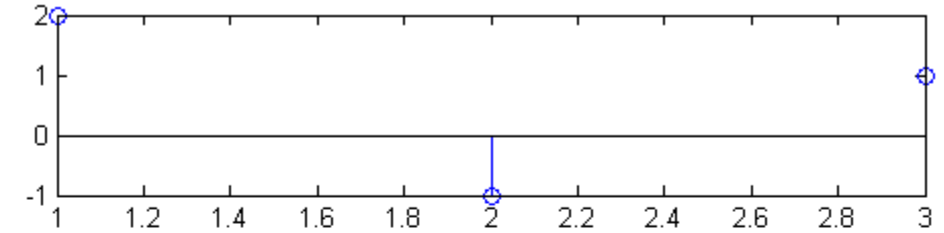
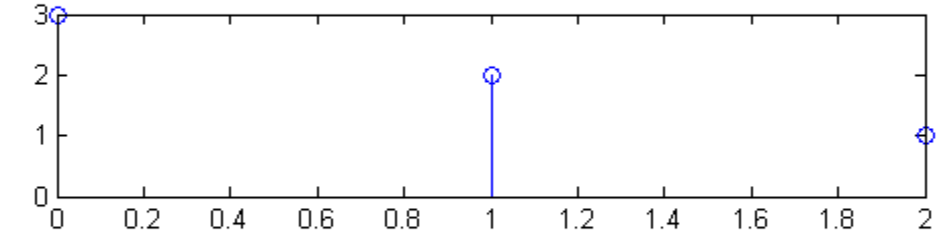
```
clear all;
close all;
clc;
%convolution with t
tint=0;
tfinal=0.05;
tstep=0.0005;
t=tint:tstep:tfinal;
x=4*square(500*t,50);
subplot(3,1,1);
plot(t,x);
h=400*exp((-400*t));
subplot(3,1,2);
plot(t,h);
t2=2*tint:tstep:tfinal*2;
y=conv(x,h);
subplot(3,1,3);
plot(t2,y);
figure;

%convolution with t
a=1;
b=0;
x=[2 -1 1];
h=[3 2 1];
subplot(3,1,1);
t=a:a+length(x)-1;
stem(t,x);
subplot(3,1,2);
t=b:b+length(h)-1;
stem(t,h);
y=conv(x,h);
subplot(3,1,3);
t=a+b:a+b+length(y)-1;
stem(t,y);

%Roll No:20A91A04L3
%Name:K.Vivek
%Date:23/11/2021
```

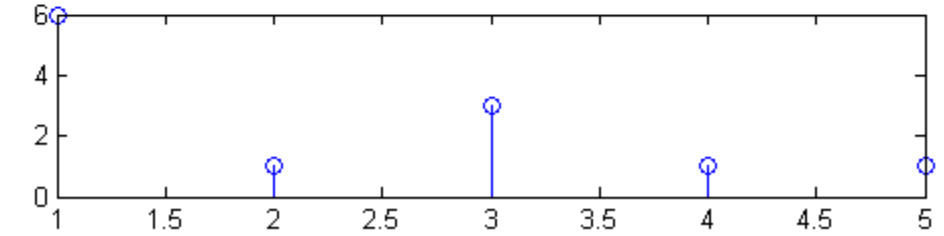

5
0
-5
0 0.005 0.01 0.015 0.02 0.025 0.03 0.035 0.04 0.045 0.05


400
200
0
0 0.005 0.01 0.015 0.02 0.025 0.03 0.035 0.04 0.045 0.05


x 10^4
1
0
-1
0 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1


2
1
0
-1
1 1.2 1.4 1.6 1.8 2 2.2 2.4 2.6 2.8 3


3
2
1
0
0 0.2 0.4 0.6 0.8 1 1.2 1.4 1.6 1.8 2


6
4
2
0
1 1.5 2 2.5 3 3.5 4 4.5 5

Published with MATLAB® R2014a