

---

%%

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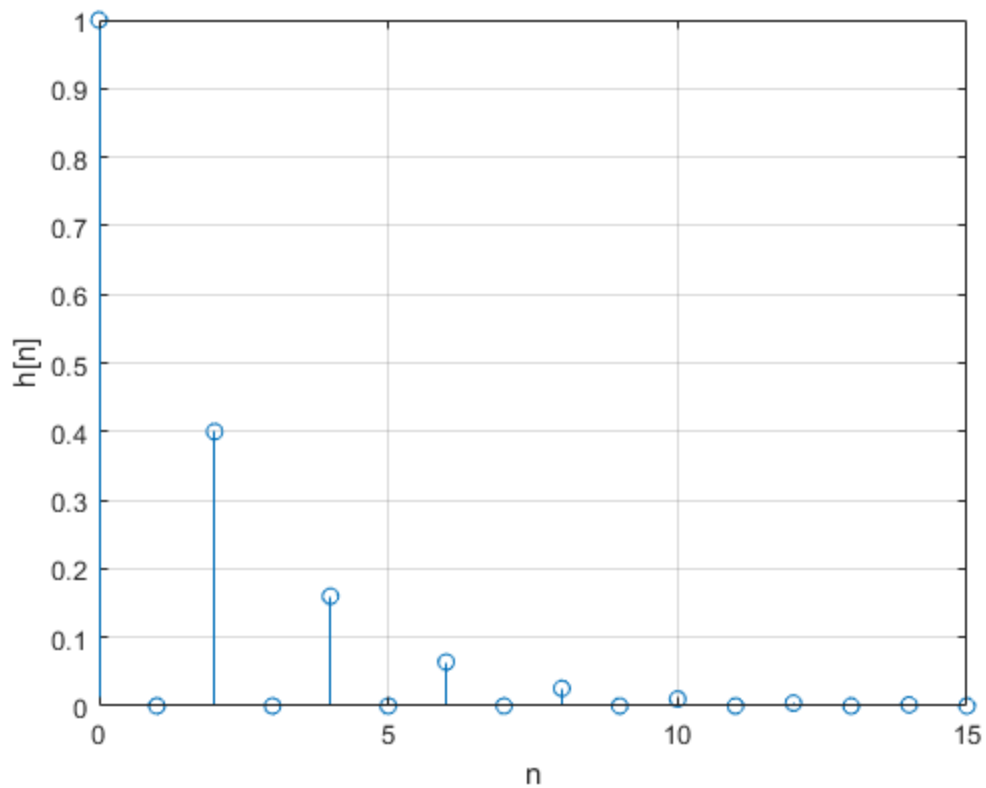
Dan Otieno. CPE 381-01. Homework 5

%%

Q1c.

```
a=[1 0 -0.4];
b=1;
x=[1 zeros(1,15)];
h=filter(b,a,x);
n=0:15;
figure(1)
stem(n,h); axis([0 15 0 1]);
grid;ylabel('h[n]'); xlabel('n')
```

%%



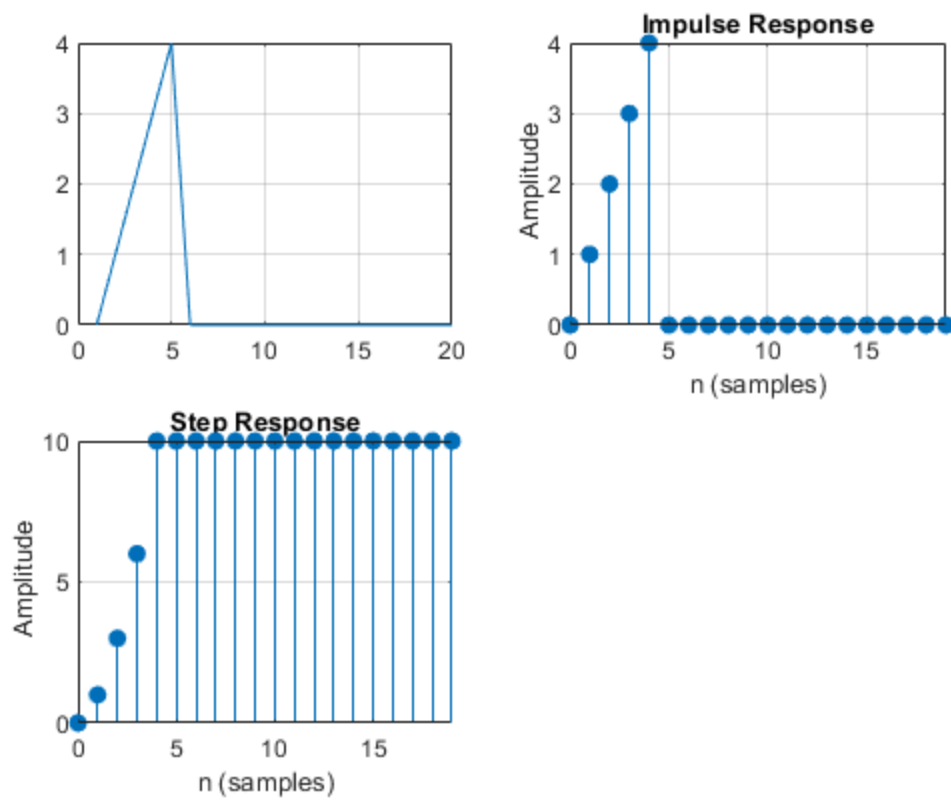
%%

Q2a, Q2b, Q2e.

```
a = 1;  
b = [0, 1, 2, 3, 4];  
x = zeros(1,20);  
x(1) = 1;  
y = filter(b,a,x);
```

```
figure(2)  
subplot(221);  
plot(y);  
grid on;  
subplot(222);  
impz(y);  
grid on;  
subplot(223);  
stepz(y);  
grid on;
```

%%



%%

Q3 Plot the convolution  $y[n] = x[n] * h[n]$

```
x = [0, 1, 1, 1, 0]
h = [1.4, 1, 0.3]
y=conv(x, h)
figure(3)
stem(y)
grid on
```

x =

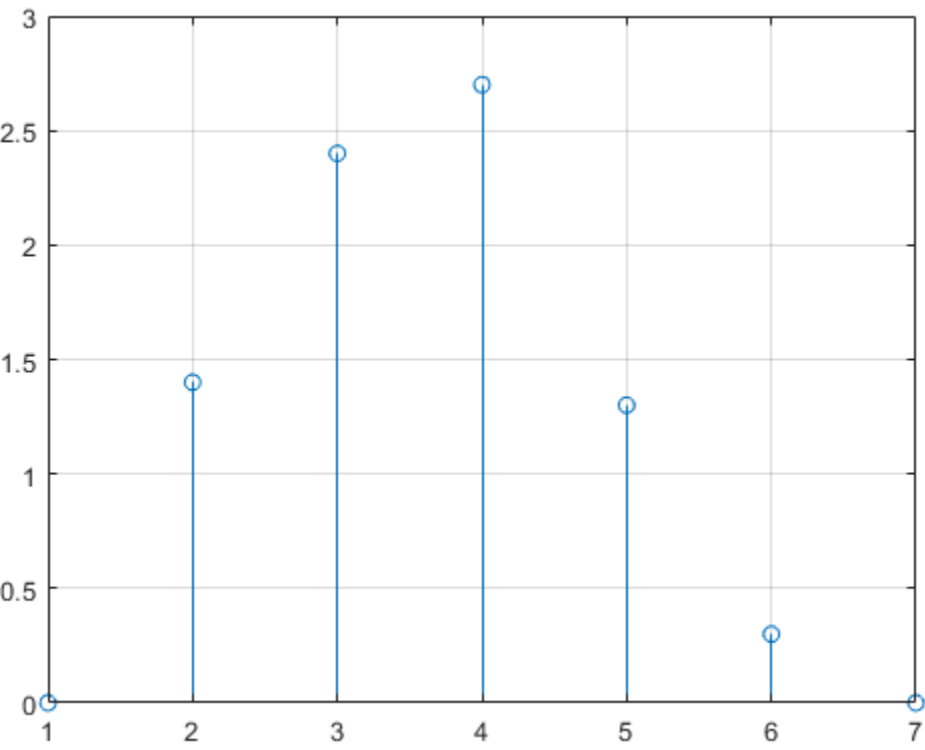
0 1 1 1 0

h =

1.4000 1.0000 0.3000

y =

=====						
%%						
0	1.4000	2.4000	2.7000	1.3000	0.3000	0



=====

**%%**

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