Table of Contents

```
%Snehal Gupta
%2016201
%Assignment 1
```
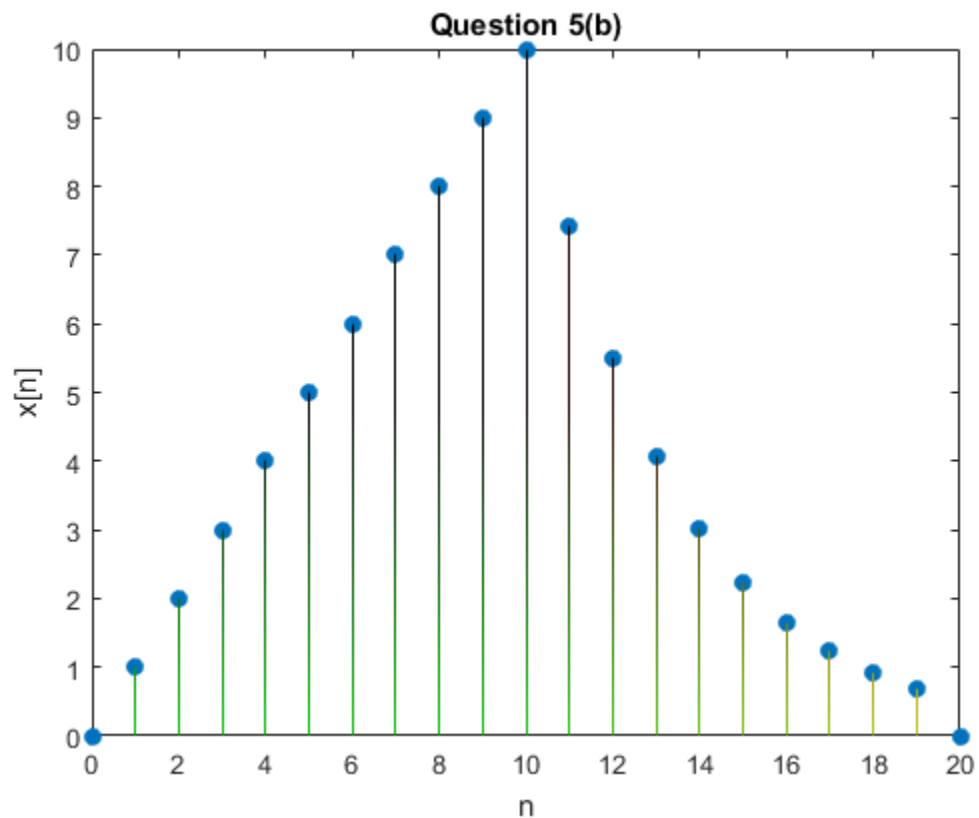
Question 5(a)

```
a=-5:5;
b= 2.*(a ==-2)-(a == 4);
stem(a,b,'filled');
xlabel('n');
ylabel('x[n]');
title('Question 5(a)');
```
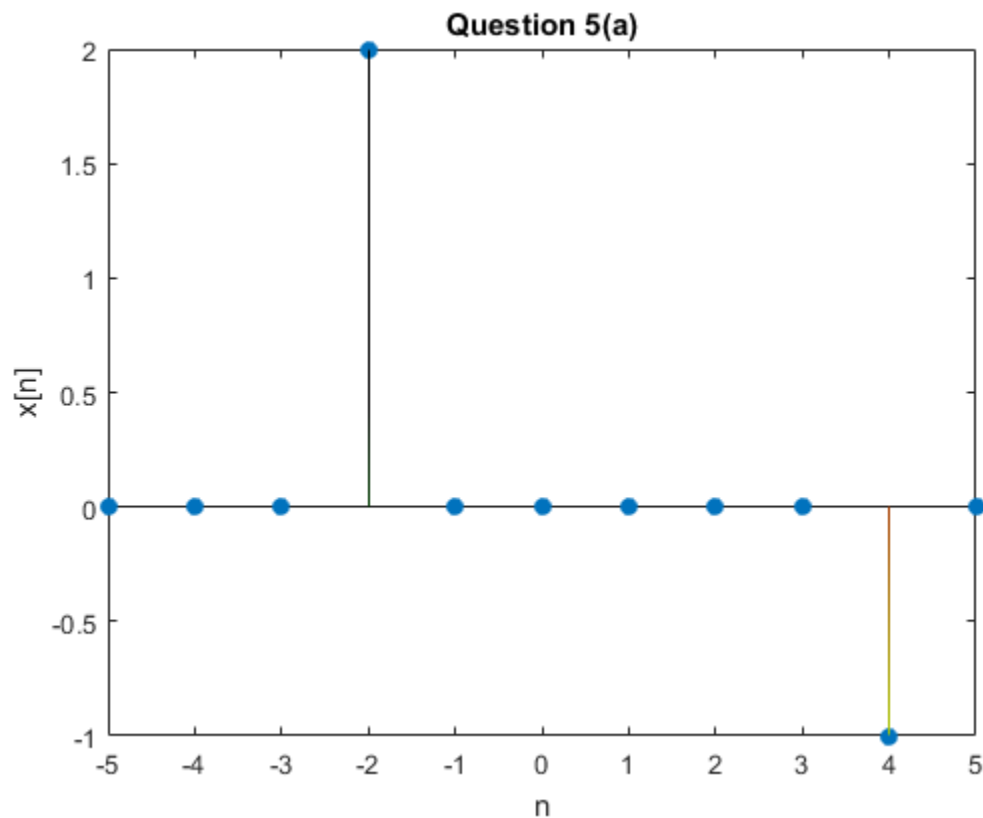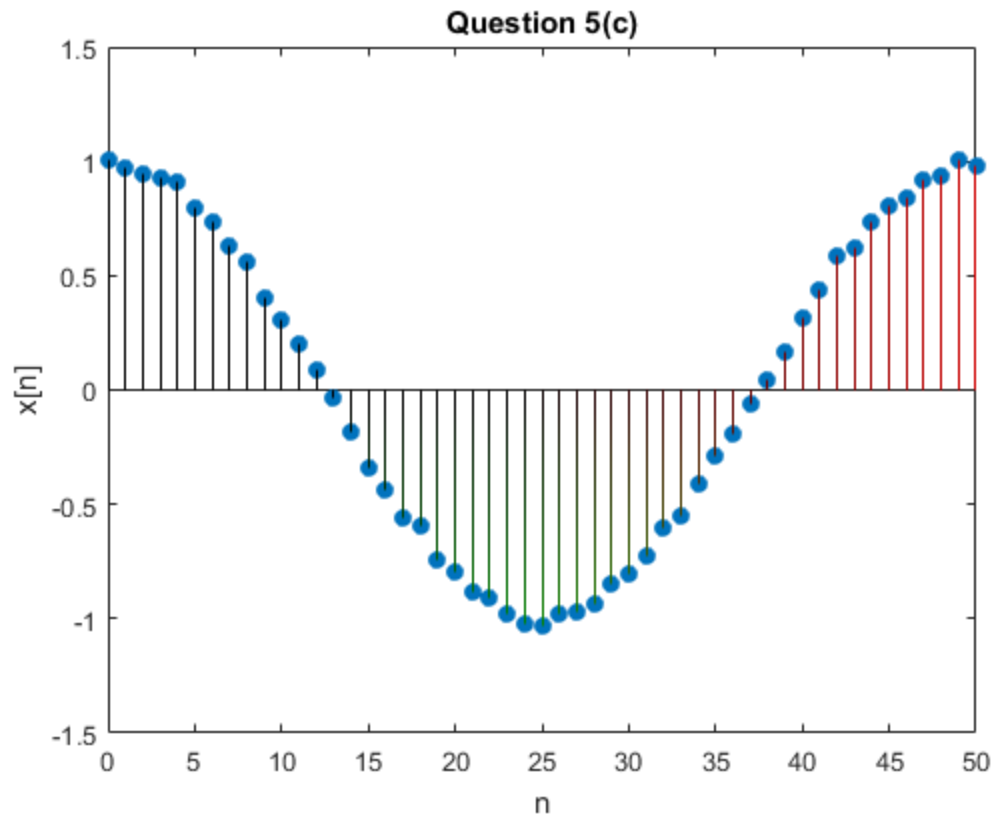
Question 5(b)

```
a=0:20;
b=a.*( (a>=0 )- (a>=10));
c=10.*exp(-0.3*(a-10)).*((a>=10)-(a>=20));
b=b+c;
stem(a,b,'filled');
xlabel('n');
ylabel('x[n]');
title('Question 5(b)');
```
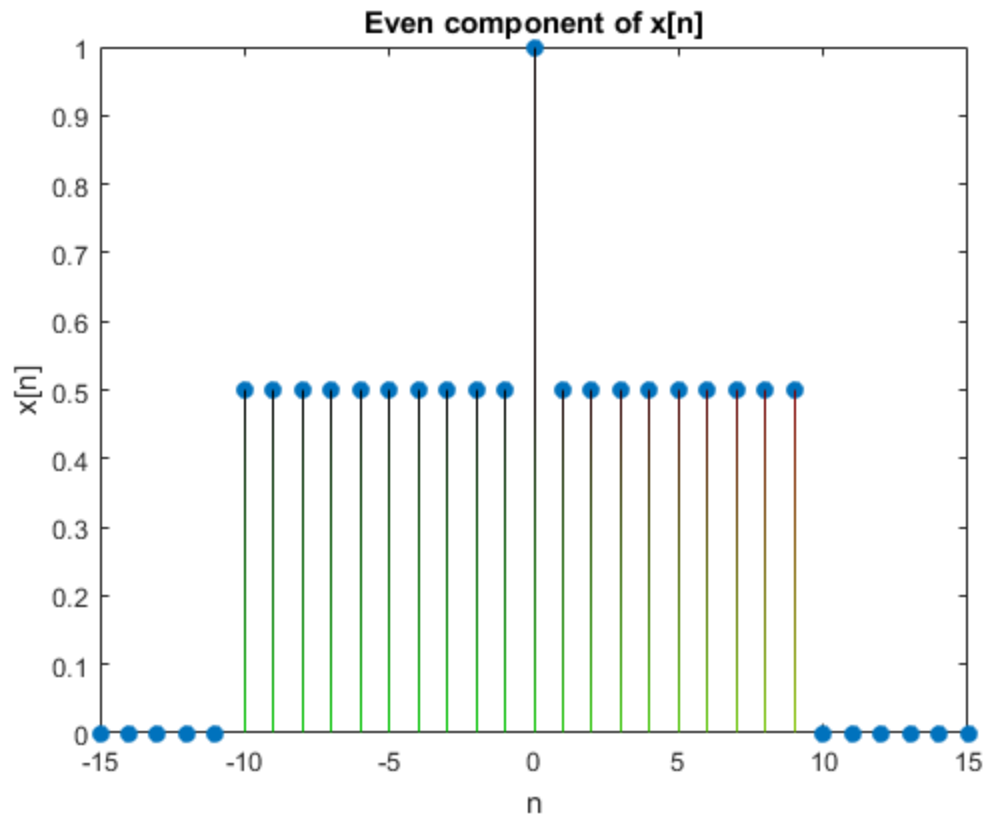

Question 5(c)

```
a=randn(1,51);
b=0:50;
c=cos(0.04*pi*b)+0.02.*a;
stem(b,c,'filled');
xlabel('n');
ylabel('x[n]');
title('Question 5(c)');
```
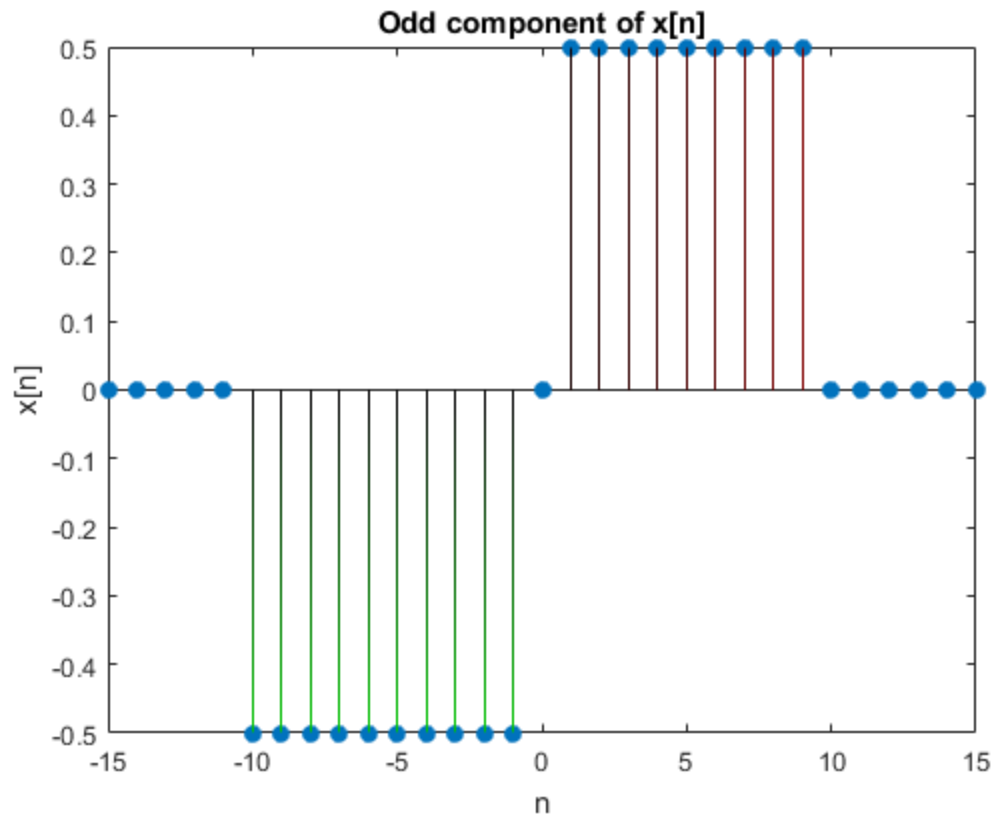
Question 5(c)

Question 5(c)

x[n] stem plot (figure)

Question 6(a)

```
a=-15:15;
b=((a>=0)-(a>=10));
c=((a>=-10)-(a>0));
b=(b+c)./2;
stem(a,b,'filled');
xlabel('n');
ylabel('x[n]');
title('Even component of x[n]');
```

Even component of x[n]

Question 6(b)

```
a=-15:15;
b=((a>=0)-(a>=10));
c=((a>=-10)-(a>0));
b=(b-c)./2;
stem(a,b,'filled');
xlabel('n');
ylabel('x[n]');
title('Odd component of x[n]');
```

Odd component of x[n]

Published with MATLAB® R2015b