

PROGRAM :

```
close();
clear();
x=input('enter the first sequence');
h=input('enter the second sequence');
z=conv(x,h);
disp(z);
subplot(2,2,1);
stem(x);
xlabel('n');
ylabel('x(n)');
title('First Sequence');
subplot(2,2,2);
stem(h);
xlabel('n');
ylabel('h(n)');
title('Second Sequence');
subplot(2,2,3);
stem(z);
xlabel('n');
ylabel('z(n)');
title('linear convolution with function');
a=length(x);
b=length(h);
N=a+b-1;
X=fft(x,N);
H=fft(h,N);
Y=X.*H;
y=ifft(Y,N);
disp(y);
subplot(2,2,4);
stem(y);
xlabel('n');
ylabel('y(n)');
title('linear convolution without function');
```

OUTPUT :

```
>> DSPEXP5
```

```
enter the first sequence
```

```
[1,1,0,0]
```

```
enter the second sequence
```

```
[2,0,2,0]
```

```
2      2      2      2      0      0      0
```

```
2.0000  2.0000  2.0000  2.0000      0  -0.0000      0
```

