```
= [x1 zeros(1,k-l)]; x2 =
[x2 zeros(1,k-m)]; X1_k =
fft(x1);
X2_k = fft(x2); Y1_k =
X1_k.*X2_k; y1 =
ifft(Y1_k); disp("Using FFT
and IFFT:") disp(y1);
```

b. Using Concentric Circle Method.

```
clc; close all; clear all; x
= [1 2 1 2]; h = [1 2 3 4];
N =
max(length(x),length(h)); y
= zeros(1,N); for n=1:N
h_s = circshift(h,n-1); %shifting h(n) by 1 unit
y(n) = sum(x.*h_s); end  disp("Using Concentric
Circle Method:") disp(y);
```

c. Using Matrix Method.

```
clc; close all;
clear all;  x
= [1 2 1 2]; h
= [1 2 3 4];
N = max(length(x),length(h)); h_n
= zeros(N,N);
 for n=1:N h_s = circshift(h,n-1);%shifting
h(n) by 1 unit h_n(:,n) = h_s;
 end y = h_n
*x';
```

```
 disp("Using Concentric Circle
Method:") disp(y');
```

Result:

Performed Circular Convolution using a) FFT and IFFT; b) Concentric Circle method; c) Matrix method and verified result.

Observation:

a) USING FFT AND IFFT Using

FFT and IFFT:

16 14 16 14

b) USING Concentric Circle Method Using

Concentric Circle Method:

16 14 16 14

c) USING Matrix Method Using

Matrix Method.:

16 14 16 14