**OST EXP NO:-2**

*CODE:*

j=sqrt(-1);

x=[1,2,3,4];

for k=1:4

Y(k)=0;

for n=1:4

Y(k) =Y(k)+(x(n)\*exp((-j\*2\*3.14\*(k-1)\*(n-1))/4))

Y(k)=round(Y(k))

end

disp(Y(k))

a=gca(); *//get the current axes*

a.data\_bounds=[0,0;5,12]

plot2d3(k,abs(Y(k)))

title('Discrete Fourier Transform')

xlabel('Discrete Frequency')

ylabel('Absolute value of DFT')

end

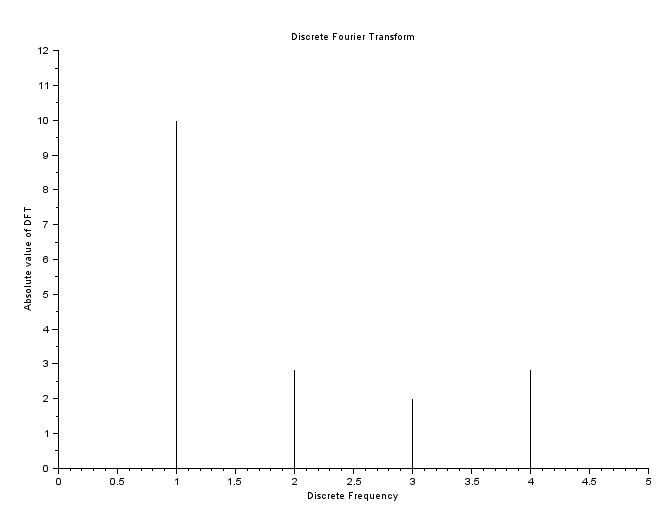
*OUTPUT:*

10.

- 2. + 2.i

- 2.

- 2. - 2.i

****