**Signal Analysis**

**BEX III/II**

**Lab 1: Plotting basic signals in Matlab**

**Task #1: unit\_impulse\_signal.m**

clc;

clear all;

close all;

t=-2:1:2;

y=[zeros(1,2),ones(1,1),zeros(1,2)];

subplot(2,2,1);

stem(t,y);

ylabel('Amplitude --');

xlabel('(a) n--');

**Task#2: unit\_step\_sequence.m**

n=input('enter the N value');

t=0:1:n-1;

y1=ones(1,n);

subplot(2,2,2);

stem(t,y1);

ylabel('Amplitude --.');

xlabel('(b) n --.');

**Task #3: ramp\_sequence.m**

n1=input('enter the length of ramp sequence');

t=0:n1;

subplot(2,2,3);

stem(t,t);

ylabel('Amplitude --.');

xlabel('(c) n --.');

**Task #4: exponential\_signal.m**

n2=input('enter the length of exponential sequence');

t=0:n2;

a=input('Enter the a value');

y2=exp(a\*t);

subplot(2,2,4);

stem(t,y2);

ylabel('Amplitude --.');

xlabel('(d) n --.');

**Task #5: sine\_signal.m**

t=0:.01:pi;

y=sin(2\*pi\*t);

subplot(2,1,1);

plot(t,y);

ylabel('Amplitude -->.');

xlabel('(e) n -->.');

**Task #6: cosine\_signal.m**

t=0:.01:pi;

y=cos(2\*pi\*t);

subplot(2,1,2);

plot(t,y);

ylabel('Amplitude -->.');

xlabel('(f) n -->.');

Task #7: allinone.m

unit\_impulse\_signal

unit\_step\_sequence

ramp\_sequence

exponential\_signal

figure

sine\_signal

cosine\_signal

Final Output:



