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%Aditya Engineering College
%Dept of ECE
%Signals and Systems Lab
%Experiment -1 -STIMULATION Of BASIC SIGNALS

%Matlab Programme to Stimulate the Standard Signals

clc;
clear all;
close all;

tic
%Define Time
t=-10:50;
[m,n]=size(t);

%Unit Impulse Signal

d=zeros(m,n);
for i=1:n;
    if t(i)==0;
        d(i)=1;
    else
        d(i)=0;
    end
end
subplot(5,1,1);
stem(t,d);
title('Unit Impulse Signal');

%Unit Step signal
s=zeros(m,n);
for i=1:n;
    if t(i)>=0;
        s(i)=1;
    else
        s(i)=0;
    end
end
subplot(5,1,2);
stem(t,s);

title('Unit Step Signal');

%Unit Ramp Signal
r=zeros(m,n);
for i=1:n;
    if t(i)>=0;
        r(i)=t(i);
    else
        r(i)=0;
    end
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end
subplot(5,1,3);
stem(t,r);

title('Unit Ramp Signal');

t1=-10:50;
[m,n]=size(t1);

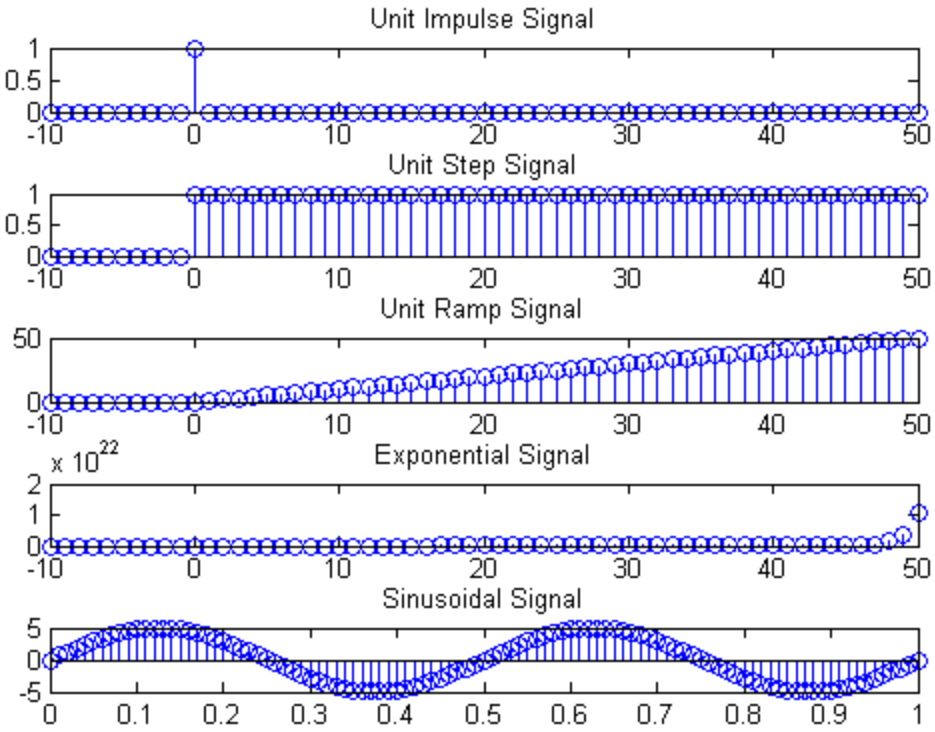
e=zeros(m,n);
A=2;
b=1;

for i=1:n
    e(i)=A*exp(b*t1(i));
end
subplot(5,1,4);
stem(t1,e);
title('Exponential Signal');

%Sinusoidal Signal
t2=0:0.01:1;
pi=3.14;
A1=5;
f=2;
x=A1*sin(2*pi*f*t2);
subplot(5,1,5);
stem(t2,x);
title('Sinusoidal Signal')
toc

%NAME:K.VIVEK
%ROLL.NO:20A91A04L8
%DATE:08/11/2021
```

Elapsed time is 0.892949 seconds.



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