College Name: - Walchand College of Engineering, Sangli
Year: - Third Year
Name: - Om Ajit Patil
PRN: - 2020BTEEN00058
Subject: - Digital Signal System Lab
Batch: - EN3

Code

```
%sine wave
clc=0;
t=0:0.1:pi;
y=sin(2*pi*t);
subplot(3,2,1);
plot(t,y);
ylabel('Voltage(Volts)->');
xlabel('(a)time(Sec)->');
title('SINE SEQUENCE');

%cosine wave
clc;
t=0:0.1:pi;
y=cos(2*pi*t);
subplot(3,2,2);
plot(t,y);
ylabel('Voltage(Volts)->');
xlabel('(b)time(Sec)->');
title('COSINE SEQUENCE');

%Ramp sequence
clc=0;
n1 = input('Enter the length of the sequence: ');
t=0:n1;
subplot(3,2,3);
stem(t,t);
ylabel('Voltage(Volts)->');
xlabel('(c)N->');
title('RAMP SEQUENCE');

%Exponential Sequence
n2=input('Enter the length of the sequence: ');
t=0:n2;
a=input('Enter the "a" value: ');
y2=exp(a\*t);
```

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subplot(3,2,4);
stem(t,y2);
ylabel('Voltage (Volts)->');
xlabel('(d)N->');
title('EXPONENTIAL SEQUENCE');
clc;

%Unit sequence
n3=input('Enter the length of the unit sequence: ');
t=0:1:n3-1;
y1=ones(1,n3);
subplot(3,2,5);
stem(t,y1);
ylabel('Voltage (Volts)->');
xlabel('(e)N->');
title('UNIT STEP SEQUENCE');

%Unit Impulse sequence
clc;
t=-5:5;
y=[zeros(1,5), ones(1,1),zeros(1,5)];
subplot(3,2,6);
stem(t,y);
ylabel('Voltage (Volts)->');
xlabel('(f)N->');
title('UNIT IMPULSE SEQUENCE');
```

Output