

```
% 1. Unit step signal x1(t) & exponential signal x2(t)
clc;
clear all;
close all;

n = input("Enter the value of n : ");
n1 = 0:1:n-1;
a = input("Enter the value of a : ");

x1 = exp(a*n1);
x2 = ones(1,n);
y = conv(x1,x2);

subplot(3,1,1);
stem(n1,x1);
hold on;
xlabel("Time axis");
ylabel("Amplitude");
title("Exponential Signal");

subplot(3,1,2);
stem(n1,x2);
hold on;
xlabel("Time axis");
ylabel("Amplitude");
title("Unit Step Signal");

subplot(3,1,3);
stem(y);
hold on;
xlabel("No of Samples");
ylabel("Amplitude");
title("Output response of LTI System");
```

