

College Name: - Walchand College of Engineering, Sangli

Year: - Third Year

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PRN: - 2020BTEEN00058

Subject: - Digital Signal System Lab

Batch: - EN3

Code

```
clear all;

N = 30; % length of sequence
n = 0:1:N-1;

% Input sequence
x = sin(2*pi*n/20) + sin(2*pi*n/15);
% Downsampling factor
M = 3;
x1 = x(1:M:N);
n1 = 1:1:N/M;
subplot(2,1,1),stem(n,x)
xlabel('n');ylabel('x');
title('Input Sequence');
subplot(2,1,2),stem(n1-1,x1)
xlabel('n');ylabel('x1');
title('DownSampled Sequence');
```

Output

