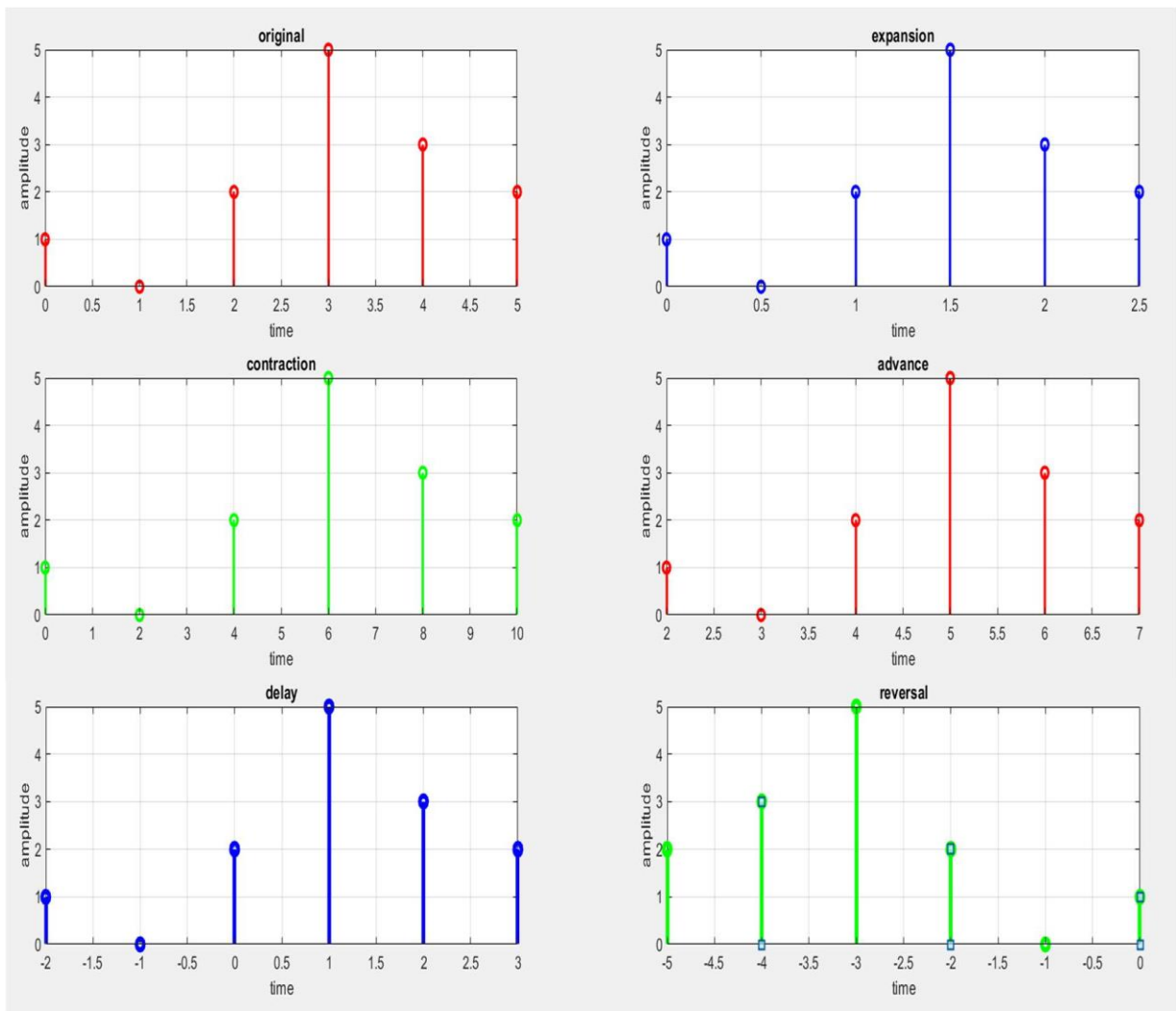AIM : To produce Operation on Discrete signals(Time scale)

Apparatus : Matlab

Program:

```
clc;  clear all; close all;
y =[1 0 2 5 3 2];
x =[0 1 2 3 4 5];
subplot(3,2,1);
stem(x,y,'R');
title("original");
xlabel("time");
ylabel("amplitude");
grid on;
subplot(3,2,2);
stem(x/2,y,'B');
title("expansion");
xlabel("time");
ylabel("amplitude");
grid on;
subplot(3,2,3);
stem(2*x,y,'G');
title("contraction");
xlabel("time");
ylabel("amplitude");
grid on;
subplot(3,2,4);
stem(x+2,y,'R');
title("advance");
xlabel("time");
ylabel("amplitude");
grid on;
subplot(3,2,5);
stem(x-2,y,'B');
title("delay");
xlabel("time");
ylabel("amplitude");
grid on;
subplot(3,2,6); stem(-x,y,'G');
title("reversal");
xlabel("time");
ylabel("amplitude");
grid on;
```

AIM : To produce Operation on Discrete signals(Amplitude scale) Apparatus : Matlab
Program:

```matlab
clc;   clear all;
close all;
y =[1 0 2 5 3 2];
x =[0 1 2 3 4 5];
subplot(3,2,1);
stem(x,y,'R'); title("original");
xlabel("time");
ylabel("amplitude"); grid on;
subplot(3,2,2);
stem(x,y/2,'B');
title("decreasing");
xlabel("time");
ylabel("amplitude"); grid on;
subplot(3,2,3);
stem(x,2*y,'G');
title("increasing");
xlabel("time");
ylabel("amplitude"); grid on;
subplot(3,2,4);
stem(x,y+2,'R');
title("Upshifting");
xlabel("time");
ylabel("amplitude"); grid on;
subplot(3,2,5); stem(x,y-2,'B');
title("downshifting");
xlabel("time");
ylabel("amplitude"); grid on;
subplot(3,2,6); stem(x,-y,'G');
title("reversal");
xlabel("time");
ylabel("amplitude"); grid on;
```