

**Aim :-** To plot the given graph by recognizing its algorithm

**Code :-**

```
clc
clear all;
close all;
x=-20:20; %defining x values
y = zeros(1,40);

for i=1:length(x)
    if x(i)<0
        if mod(x(i),3)==0
            y(i)=-x(i);
            figure(1),stem(x(i),y(i),'r'),hold on
        else
            y(i)=x(i);
            figure(1),stem(x(i),y(i),'b'),hold on
        end
    else
        if mod(x(i),3)==0
            y(i)=-x(i);
            figure(1),stem(x(i),y(i),'g'),hold on
        else
            y(i)=x(i);
            figure(1),stem(x(i),y(i),'m'),hold on
        end
    end
end
xlabel("time (t)");
ylabel("amplitude (t)");
```

**Output :-**

