

```
1 function [dbdt] = boskiblizz(t,b)
2
3 dbdt(1)=-((15/500)*b(1))+((5/1000)*b(2))+1;
4 dbdt(2)=((15/500)*b(1))-((18/1000)*b(2))+((3/400)*b(3));
5 dbdt(3)=((13/1000)*b(2))-((13/400)*b(3));
6
7 dbdt=dbdt';
8 end
```

```
1 commandwindow
2 clearvars
3 clc
4 close all
5 reds= [0:1:1200];
6 initial=[0 0 0];
7 [t,Q]= ode45(@boskiblizz,reds,initial);
8
9 figure(1)
10 subplot(3,1,1)
11 plot(t,Q(:,1),'go-')
12 xlabel('Time(min)')
13 ylabel('Volume (litres)')
14 legend('Tank 1', 'Location', 'South')
15 grid on
16 axis tight
17 title('Figure 1:Dynamic Responses of the Tanks')
18
19 subplot(3,1,2)
20 plot(t,Q(:,2),'b*--')
21 xlabel('Time(min)')
22 ylabel('Volume (litres)')
23 legend('Tank 2', 'Location', 'South')
24 grid on
25 axis tight
26
27 subplot(3,1,3)
28 plot(t,Q(:,3),'r+--')
29 xlabel('Time(min)')
30 ylabel('Volume (litres)')
31 legend('Tank 3', 'Location', 'South' )
32 grid on
33 axis tight
```

Figure 1: Dynamic Responses of the Tanks

