CONTROL SYSTEM LAB REPORTS

LAB 06

SUBMITTED BY

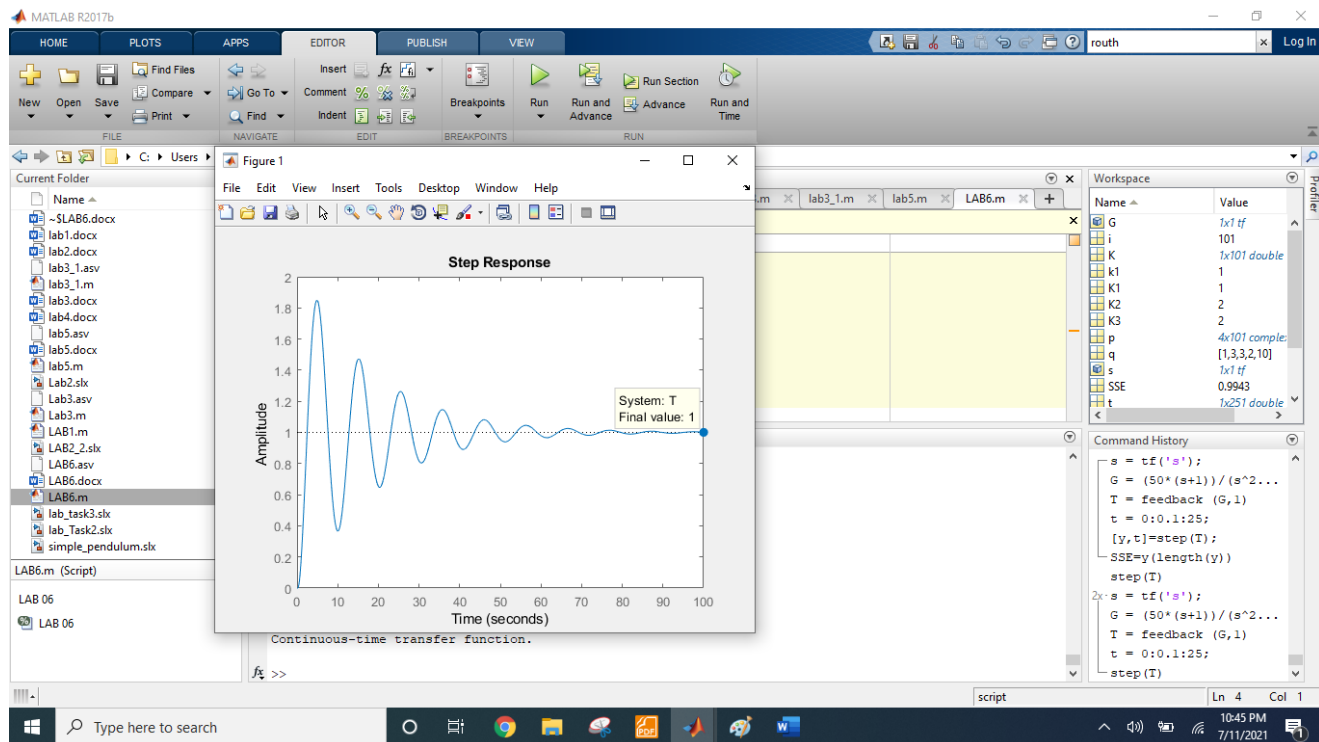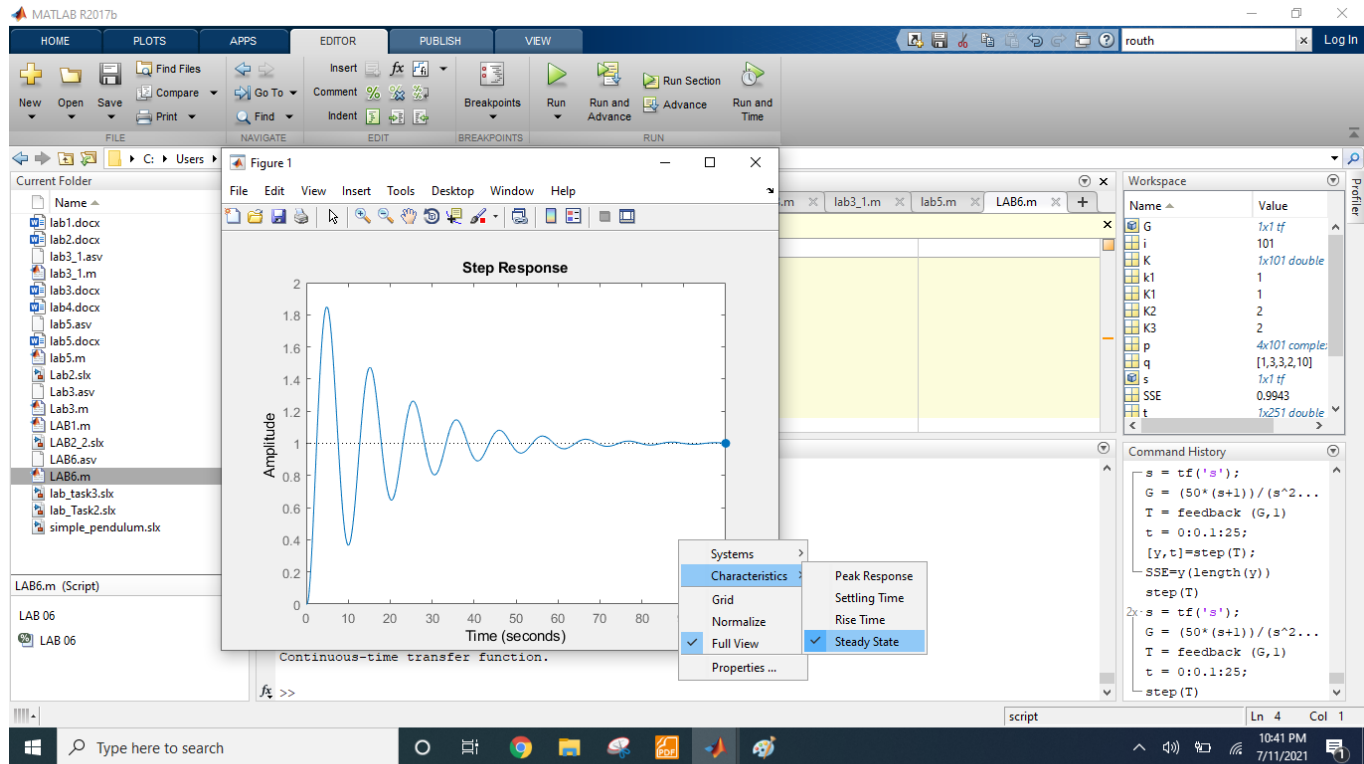## ZARAFSHAN IQBAL

REG NO

17KTELE0556

SEMESTER

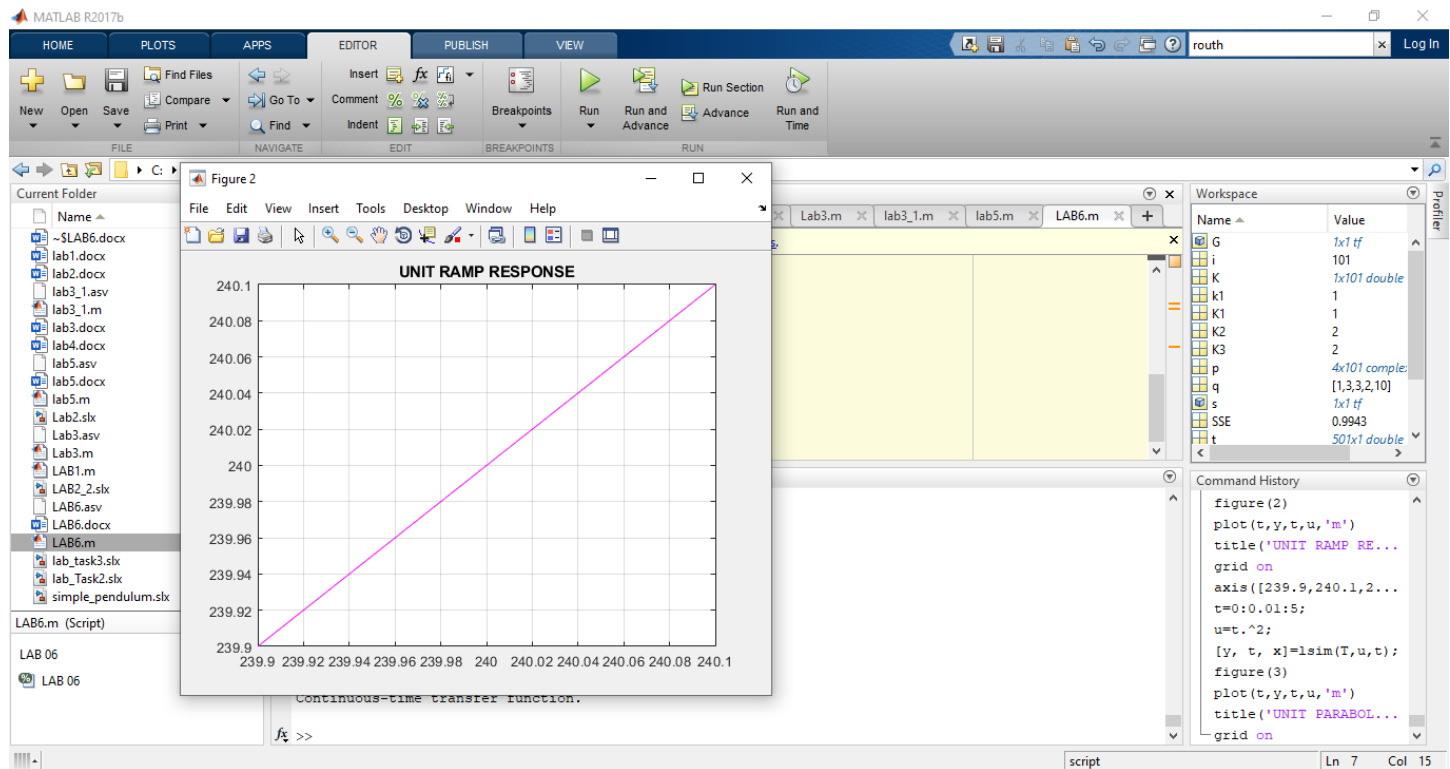## 8TH

SUBMITTED TO

ENGR.M.AMJAD

LAB 06

TASK 01:
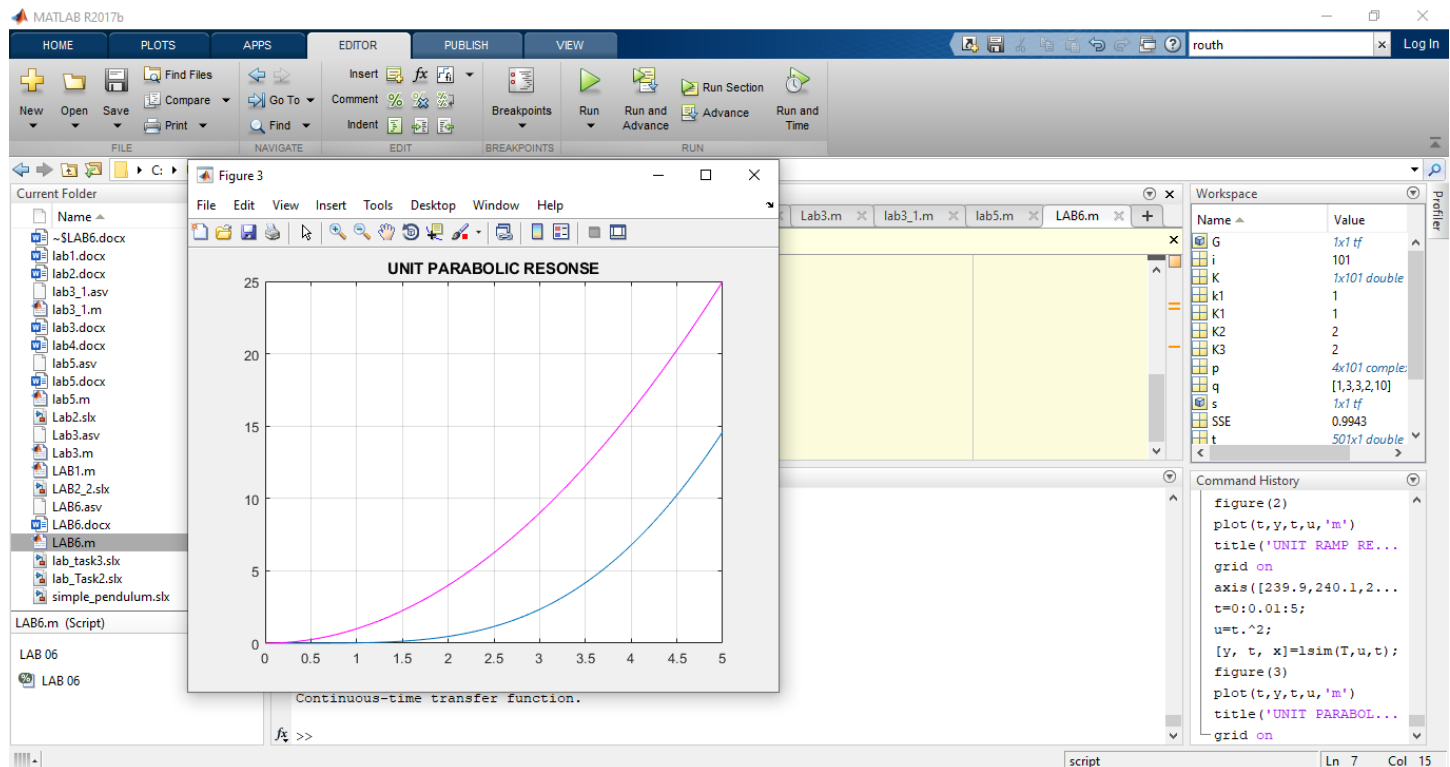
For unit step input

Since the final value of the system is 1, so the steady state error having step input is zero.

For unit ramp input:

There is also no steady state error shown in graph,

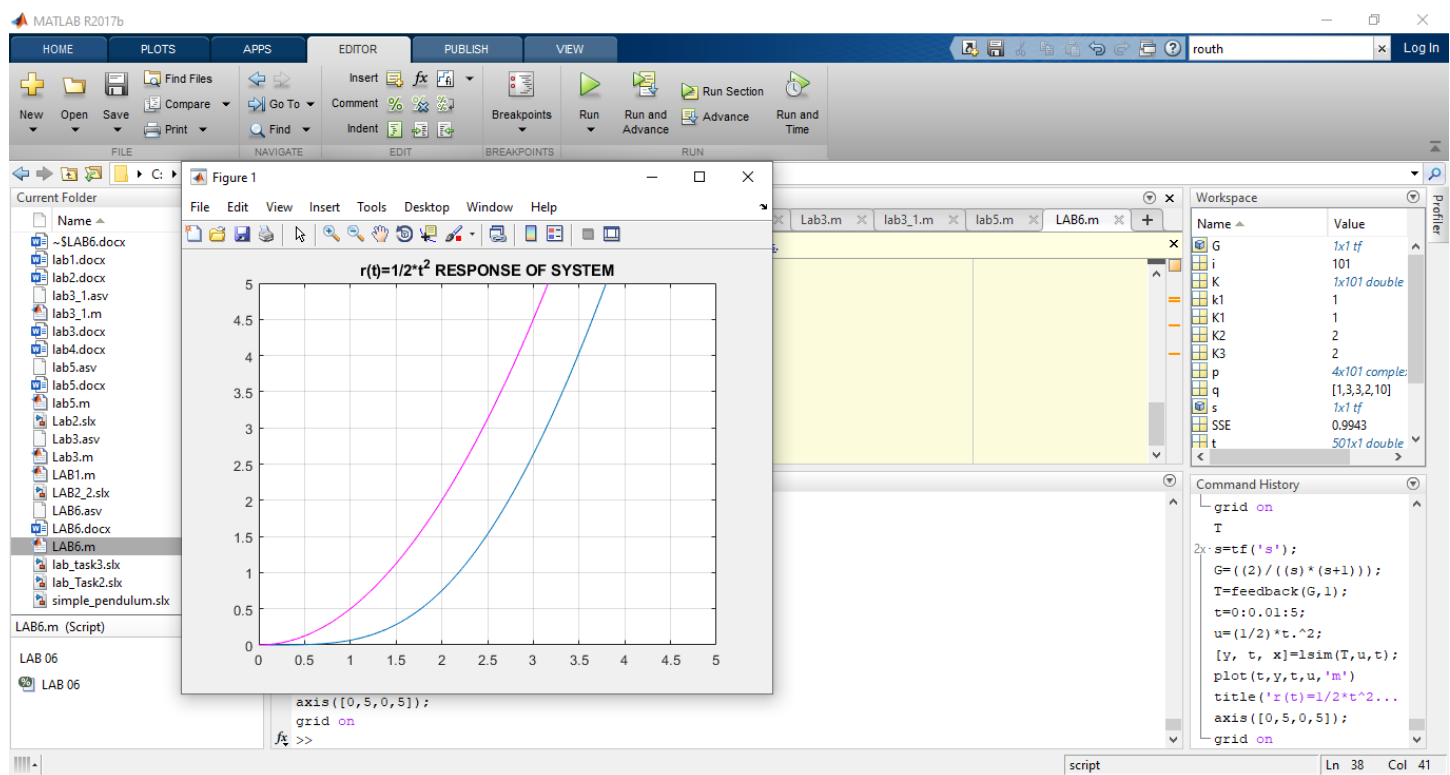## For unit parabolic response:

As shown in the graph, there is a finite error in the graph.
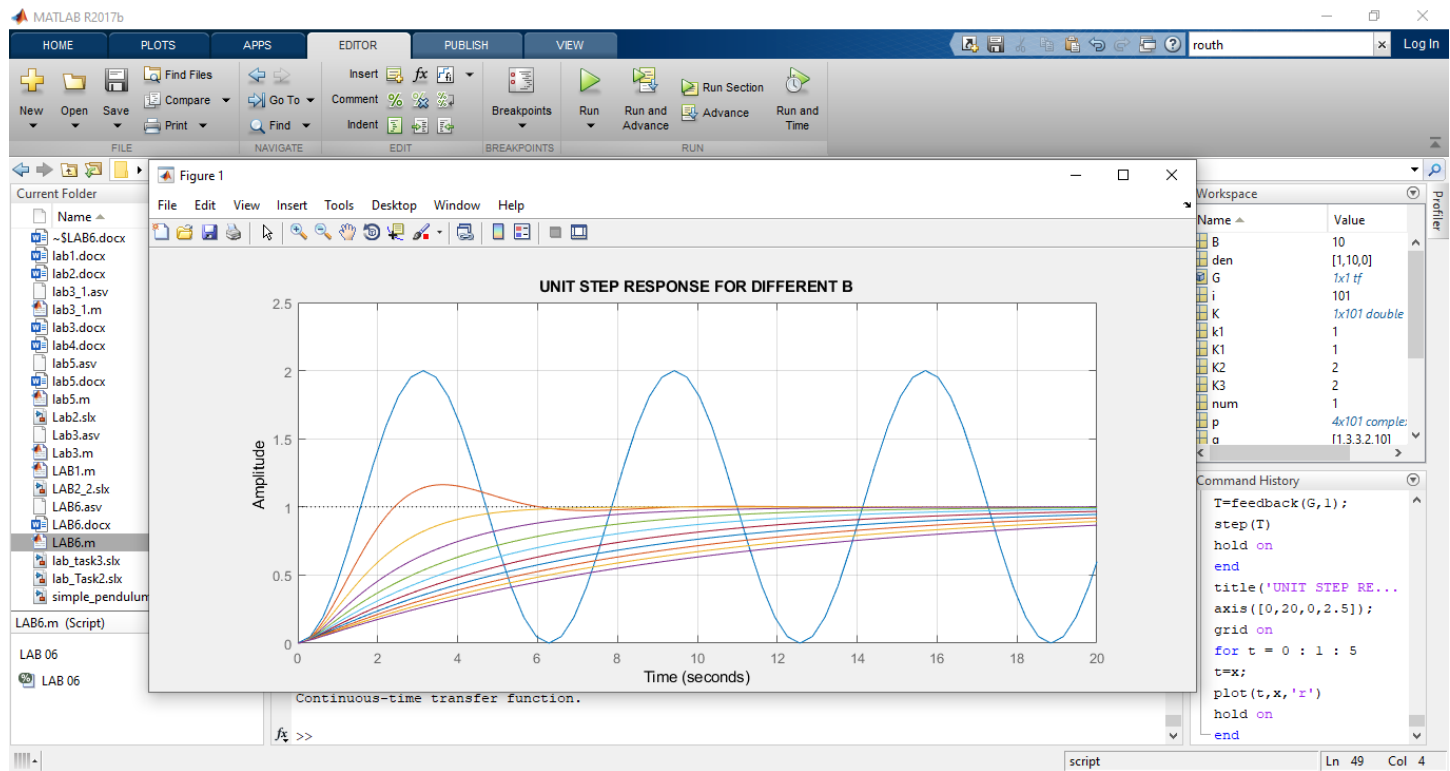
Task 02:

MATLAB CODE:

```
s=tf('s');
G=((2)/((s)*(s+1)));
T=feedback(G,1);
t=0:0.01:5;
u=(1/2)*t.^2;
[y, t, x]=lsim(T,u,t);
plot(t,y,t,u,'m')
title('r(t)=1/2*t^2 RESPONSE OF SYSTEM')
axis([0,5,0,5]);
grid on
```
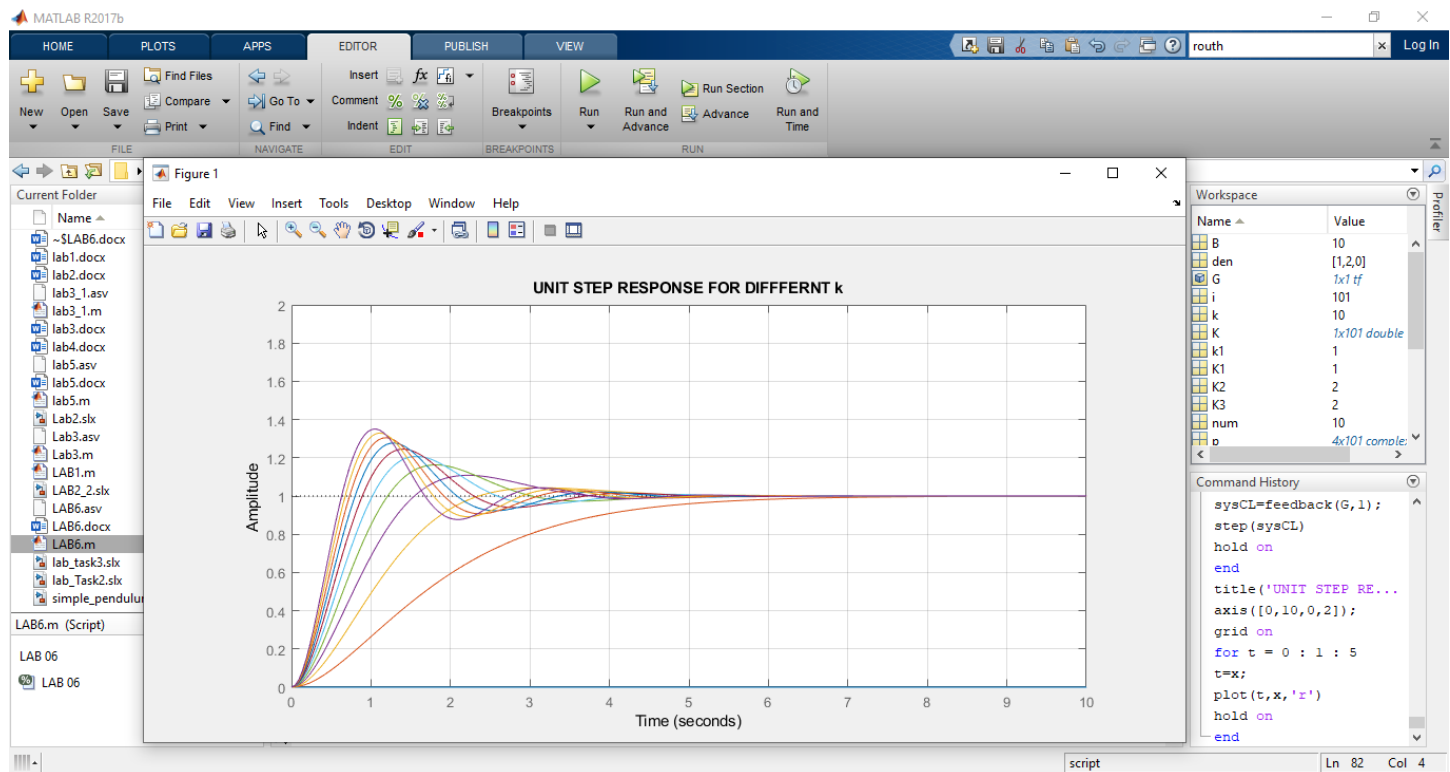
MATLAB RESULT:

Task 03:

Effect of value B, when all other values are taken constant

Effect of value K, when all other values are taken constant

Unit ramp response for small , medium and large value of K.