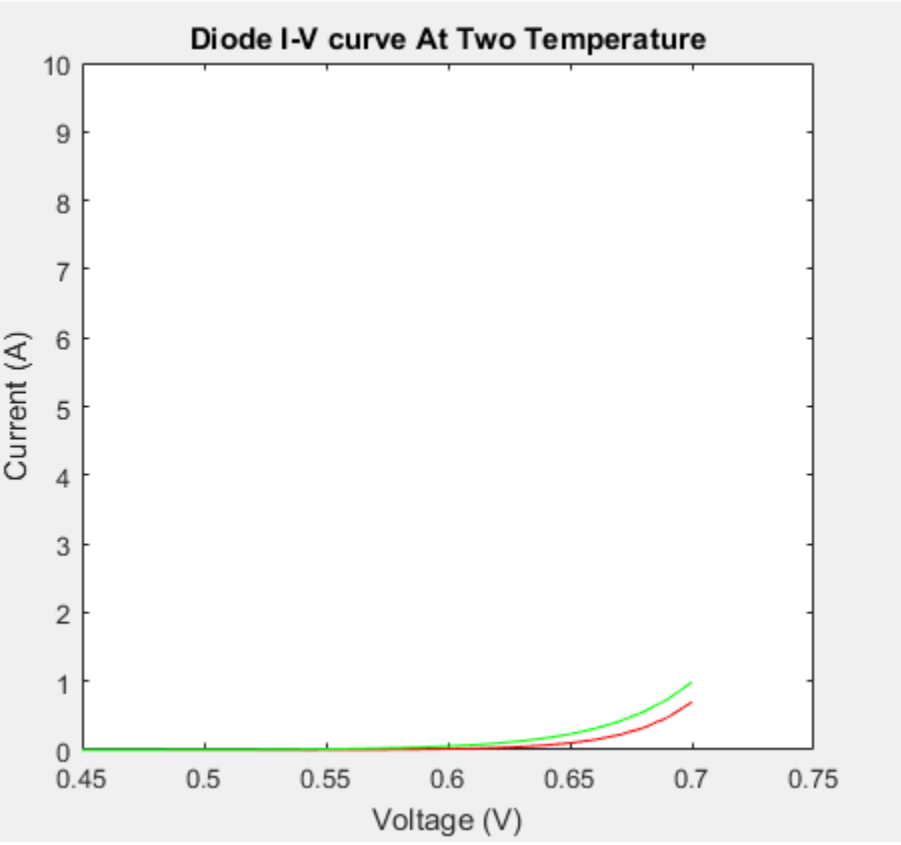
Name	Umar Hayyat
Roll No:	2019-EE-360

Assignment#2

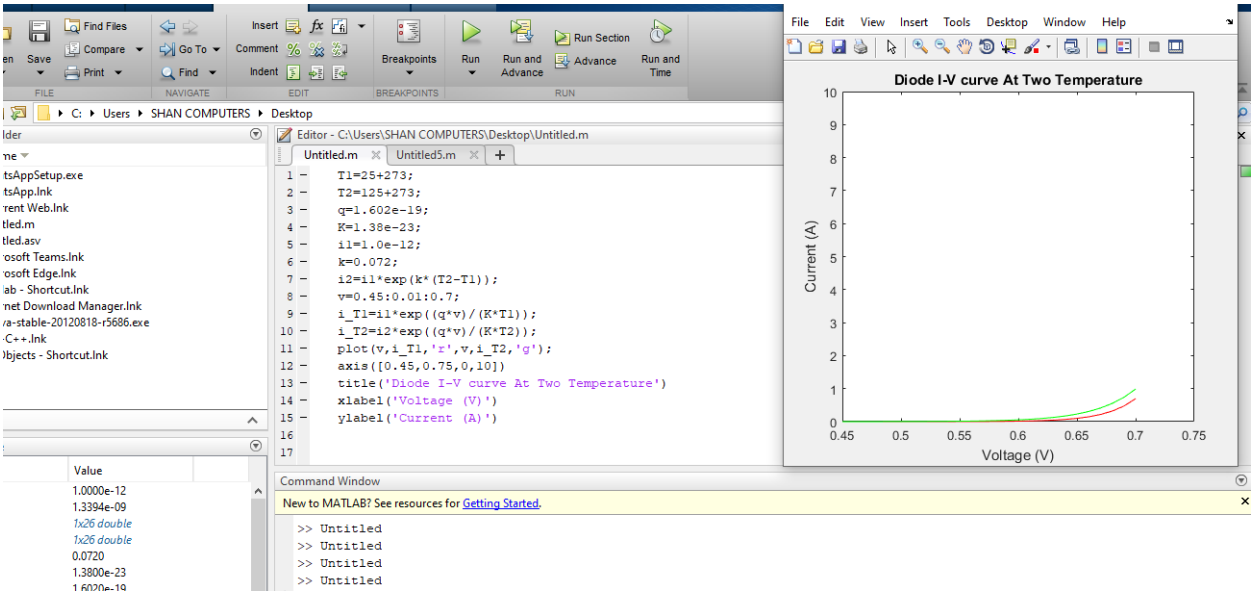
Code:

```
T1=25+273;
T2=125+273;
q=1.602e-19;
K=1.38e-23;
i1=1.0e-12;
k=0.072;
i2=i1*exp(k*(T2-T1));
v=0.45:0.01:0.7;
i_T1=i1*exp((q*v)/(K*T1));
i_T2=i2*exp((q*v)/(K*T2));
plot(v,i_T1,'r',v,i_T2,'g');
axis([0.45,0.75,0,10])
title('Diode I-V curve At Two Temperature')
xlabel('Voltage (V)')
ylabel('Current (A)')
```

Output:



In MATLAB:


Diode I-V curve At Two Temperature
Current (A)
Voltage (V)
Editor - C:\Users\SHAN COMPUTERS\Desktop\Untitled.m
Untitled.m
Untitled5.m
T1=25+273;
T2=125+273;
q=1.602e-19;
K=1.38e-23;
i1=1.0e-12;
k=0.072;
i2=i1*exp(k*(T2-T1));
v=0.45:0.01:0.7;
i_T1=i1*exp((q*v)/(K*T1));
i_T2=i2*exp((q*v)/(K*T2));
plot(v,i_T1,'r',v,i_T2,'g');
axis([0.45,0.75,0,10])
title('Diode I-V curve At Two Temperature')
xlabel('Voltage (V)')
ylabel('Current (A)')
Command Window
New to MATLAB? See resources for Getting Started.
>> Untitled
>> Untitled
>> Untitled
>> Untitled