**AIM:TO PLOT SPECIFIC HEAT OF SOLIDS (EINSTEIN’S LAW)**

**SOURCE CODE:**

clear

clc

clf

h=6.626D-34

R=8.3144598

k=1.38D-23

N=6.023D23

q=[50,100,150]

T=1:1:500

for i=1:3

x=q(i)./T

y=exp(x)

z=1./(y-1).^2

F=3\*R\*(x.^2).\*y.\*z

plot2d(T,F,i)

legends(["Temp="+string(q(i))+"-"],[i])

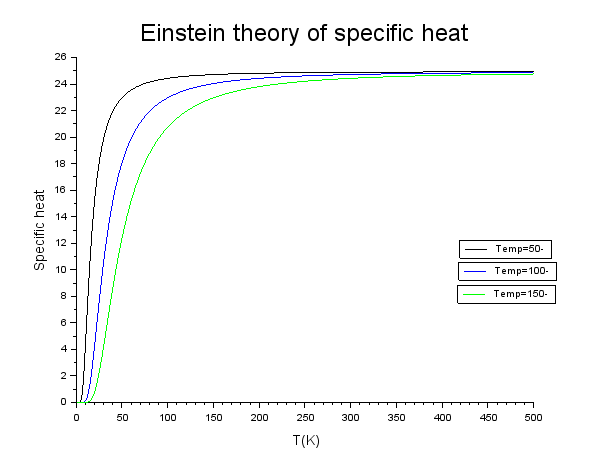
end

xlabel("T(K)","fontsize",3)

ylabel(" Specific heat","fontsize",3)

title("Einstein theory of specific heat","fontsize",5)

**OUTPUT:**

****