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**DEPT: ELECT/ELECT ENGINEERING**

**MATRIC:17/ENG04/065**

**ENGINEERING MATH ASSIGNMENT III**

commandwindow

clear

clc

syms t

close all

v=110\*cos(120\*pi\*t)

C=(100\*10^-6)

t=0:0.01:0.35

Q=C\*v

I=diff(Q)

D=subs(v,t)

M=subs(I,t)

P=I\*v

S=subs(P,t)

Sn=double(S)

plot(t,D,'blue')

hold on

plot (t,M,'red')

hold on

plot (t,Sn,'black')

xlabel('time(secs)')

ylabel('variable')

legend('voltage(v)','current(A)','power(watts)')

grid on

grid minor

