

Assignment 3

Scanned Documents

Q. Expo - Experiment

17/02/2024

Mechanics

Assignment 3

Command window →

clear →

clc →

close all →

syms t →

$V = 110 + \cos(120\pi P. \leftarrow t) \rightarrow$

$C = 100 \rightarrow$

$q = C \cdot V \rightarrow$

$i = \text{diff}(q) \rightarrow$

$P = i * V \rightarrow$

$t = 0:0.001:0.35 \rightarrow$

$V_n = \text{subs}(V) \rightarrow$

$V_{nz} = \text{double}(V_n) \rightarrow$

$I_n = \text{double}(i_n) \rightarrow$

$P_n = \text{subs}(P) \rightarrow$

$P_{nz} = \text{double}(P_n) \rightarrow$

plot(t, V_n) →

hold on →

plot(t, P_n) →

legend('Voltage V', 'Current (a)', 'Power (w)') →

Grid on →

Grid minor →