EE 2240
Problem \#11

Given the $R C$ circuit shown below:

a. Find $v_{C}(t)$ for $t \geq 0$, if $v_{C}(0)=40 \mathrm{~V}$.
b. Find $i(t)$ for $t \geq 0$.
c. Use PSpice and PROBE to plot the power absorbed by the resistor, $p(t)=v_{C}(t) \times i(t)$, over a time span equal to $5 \times \tau$ where $\tau$ is the time constant of the $R C$ circuit.

