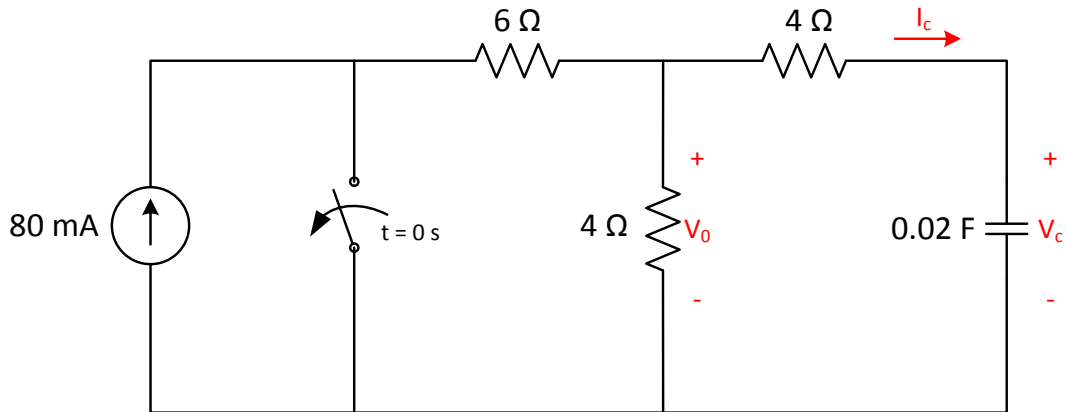


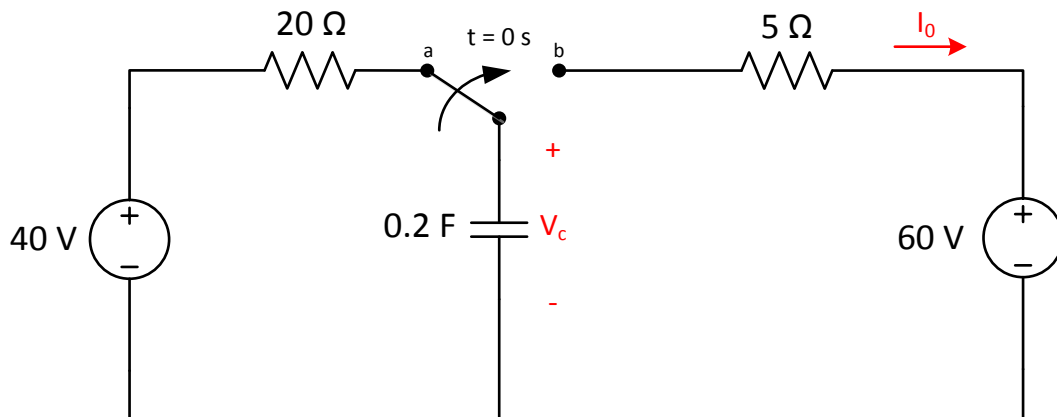
Q-1:



The switch in the circuit shown above has been closed for a long time before opening at $t=0$ s. for $t \geq 0$, find:

- a) $V_c(t)$
- b) $I_c(t)$
- c) $V_0(t)$

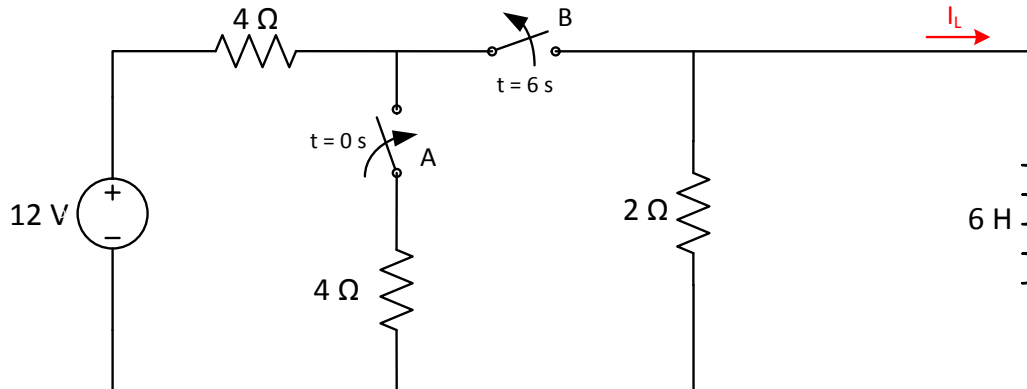
Q-2:



The switch in the circuit shown above has been in position a for a long time before switching to position b at $t=0$ s. Find:

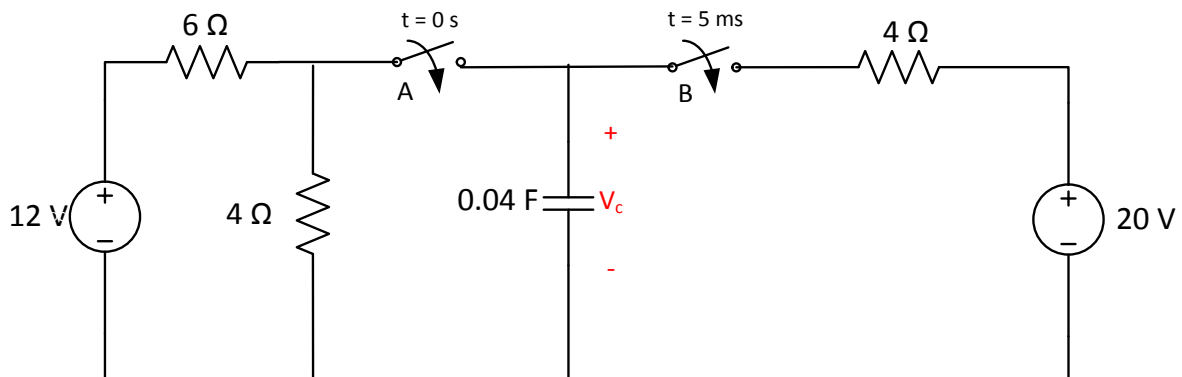
- a) $V_c(0^+)$
- b) $V_c(t)$ for $t \geq 0$
- c) $V_c(\infty)$
- d) Time constant for $t \geq 0$
- e) $I_0(t)$ for $t \geq 0$

Q-3:



The switch A in the circuit shown above has been open and switch B has been closed for a long time. At $t=0$, switch A closes. After 6 seconds, switch B opens. Find $I_L(t)$ for $t \geq 0$.

Q-4:



The switch A in the circuit shown above has been open and switch B has been closed for a long time. At $t=0$, switch A closes. At $t = 5$ milliseconds, switch B then closes. Find $V_c(t)$ for $t \geq 0$.