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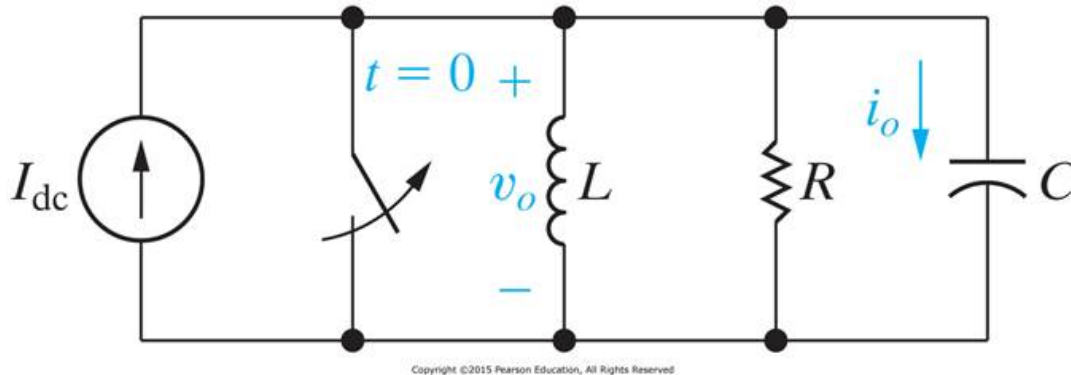
**Time taken** 29 mins 59 secs

**Grade** 100.00 out of 100.00

**Question 1**

Correct

Mark 100.00 out of 100.00



Quiz 5b

The circuit parameters for this circuit are

$R = 200 \, \Omega$  (Ohm)  $L = 50 \, \text{mH}$  (milli H)  $C = 0.2 \, \mu\text{F}$  (micro F)  $I_{dc} = 75 \, \text{mA}$  (milli A)

Also given 
$$V_0(s) = \frac{\frac{I_{dc}}{C}}{s^2 + s \frac{1}{RC} + \frac{1}{LC}}$$

Find the time domain voltage  $v_0(t)$  for  $t \geq 0$ . (t equal to or greater than zero)

$v_0(t) = [ \text{25} \exp[ \text{-5000} t ] + \text{-25} \exp[ \text{-20000} t ] ] u(t) \, \text{V}$

Answer is in the form  $v_0(t) = [A e^{Bt} + C e^{Dt}] u(t) \, \text{V}$  and where  $|B|$  is less than  $|D|$

**Correct**

Marks for this submission: 100.00/100.00.