Class 11 (27.05.2025)
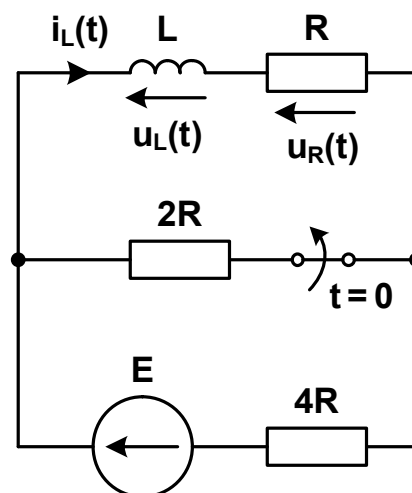
1. The circuit shown in the figure has been
   in a steady-state. The switch was open at t = 0.
   Calculate and plot $i_C(t)$ and $u_C(t)$ for t < 0, t = 0
   and t > 0.

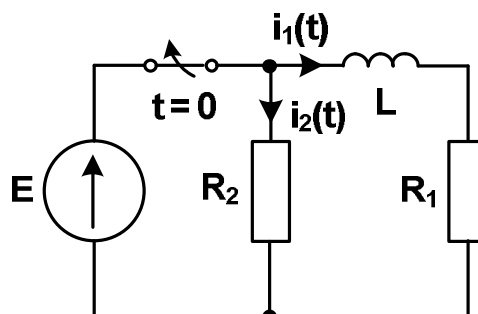   E = 100 V, R_1 = 20 Ω, R_2 = 40 Ω, C = 10 mF.
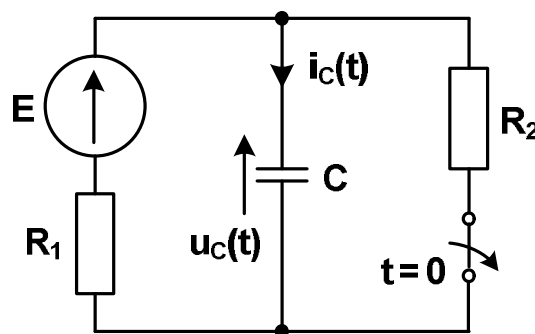
2. The circuit shown in the figure has been in
   a steady-state. At t = 0 the switch was open.
   Find and plot $i_L(t)$, $u_L(t)$, and $u_R(t)$ for t < 0,
   t = 0, and t > 0.

3. The circuit shown in the figure has been in
   a steady-state. The switch was open at t = 0.
   Plot $i_1(t)$ and $i_2(t)$ for t < 0, t = 0 and t > 0.

   E = 100 V, L = 0.1 H, R_1 = 25 Ω, R_2 = 75 Ω.