

Assignment-3

Q.1. An experimental space station power supply system is modelled in figure below. Find $v(t)$ for $t > 0$ in LT Spice.

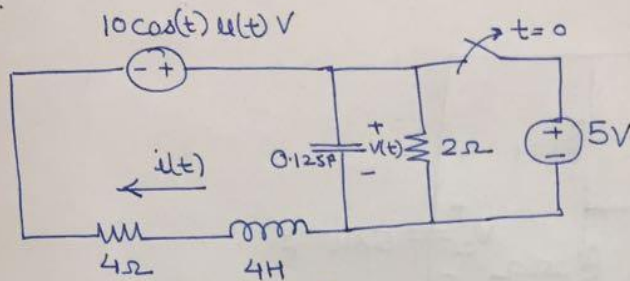


Fig. 1

Q.2. Determine $v(t)$ for $t > 0$ for the circuit shown in fig 2. Solve it in LT Spice.

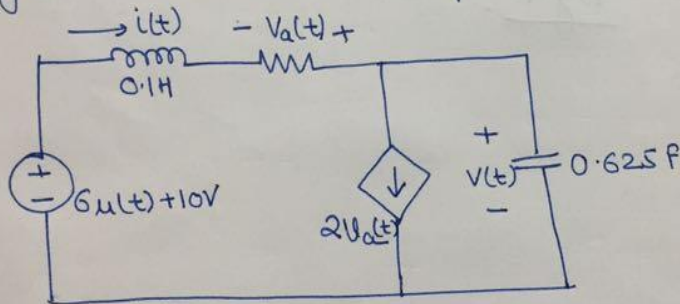


Fig 2.

Q.3. A 240-W power supply circuit is shown below. Find i_L for $t > 0$. Solve it manually and in LT Spice.

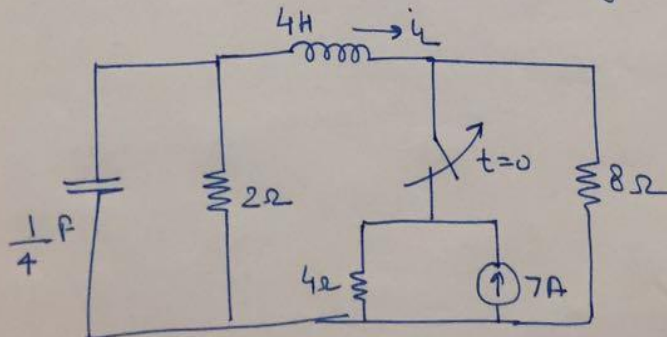


Fig 3

Q.4. A communication system from space station uses short pulse to control robot in space. Circuit is modeled as below. Find V_C for $t > 0$? Solve it manually and in LT Spice.

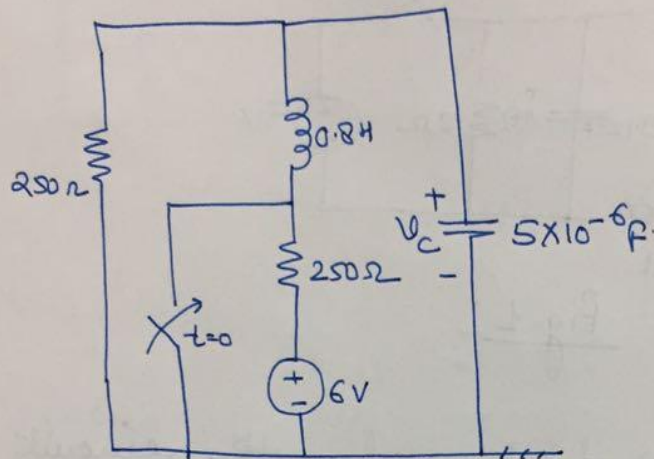


Fig 4