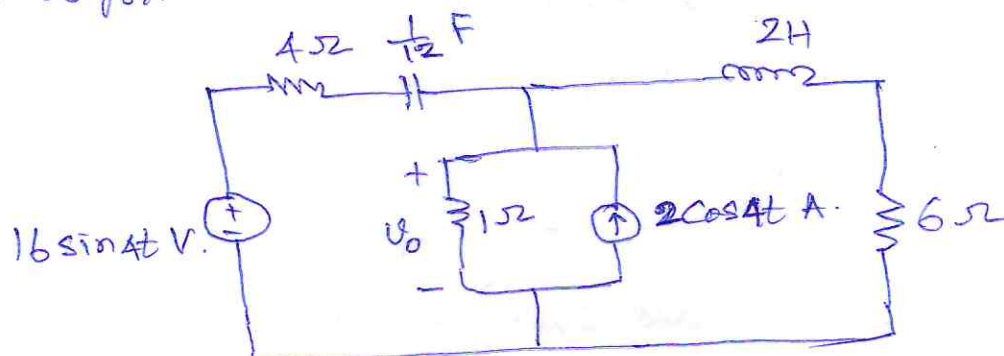


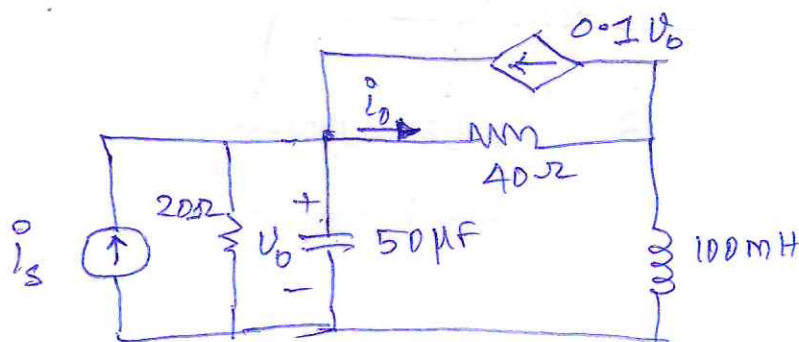
Tutorial Sheet-2

④

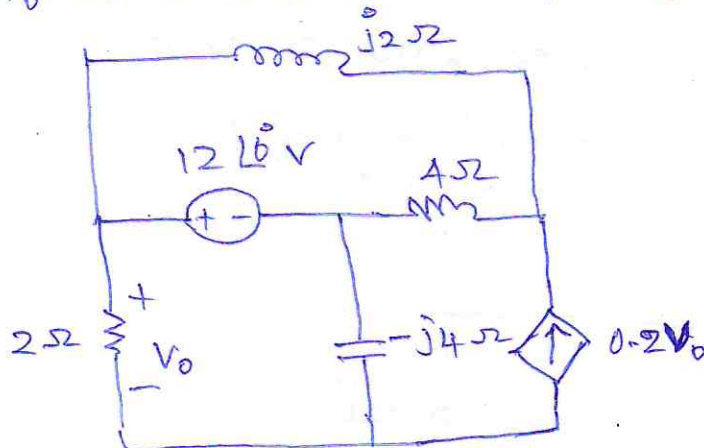
- ① Determine V_o in the circuit below, using nodal analysis.



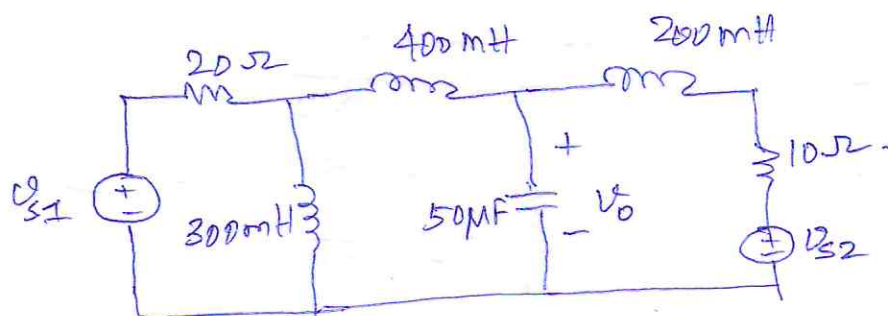
- ② Use nodal Analysis to find current i_o in the circuit below. Let $i_s = 6 \cos(200t + 15^\circ) \text{ A}$.



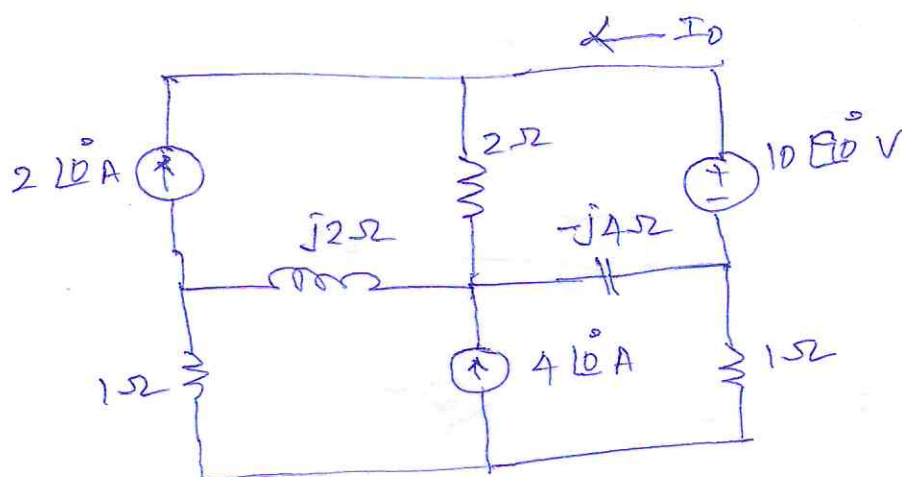
- ③ Obtain V_o in the circuit below, using nodal Analysis.



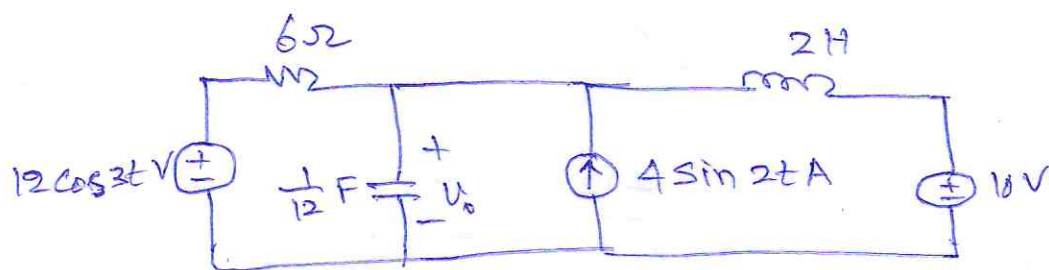
- ④ Use mesh analysis to find V_o in the circuit below.
Let $V_{s1} = 120 \cos(100t + 90^\circ) \text{ V}$, $V_{s2} = 80 \cos 100t \text{ V}$.



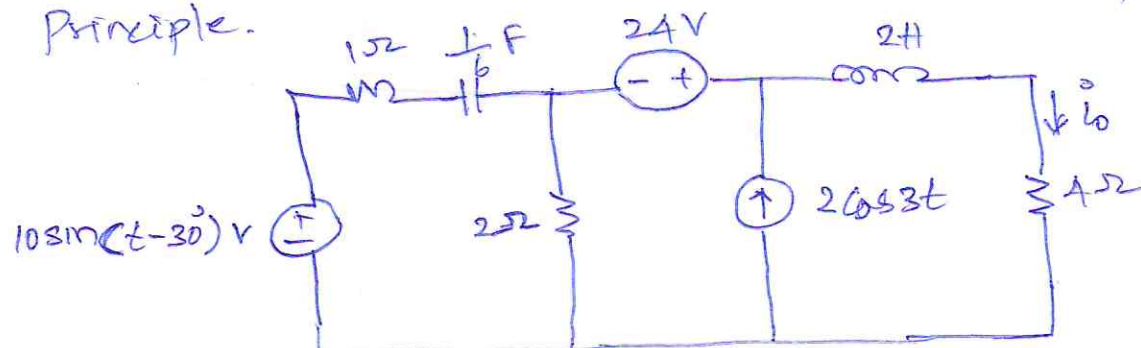
- ⑤ Using mesh analysis, Obtain I_o in the circuit below.



- ⑥ Solve for $V_o(t)$ in the circuit below, using Superposition Principle.

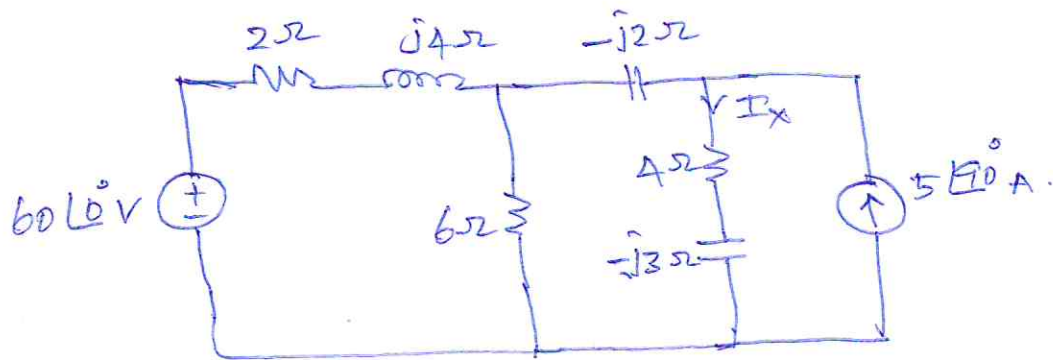


- ⑦ Determine i_o in the circuit below using Superposition Principle.

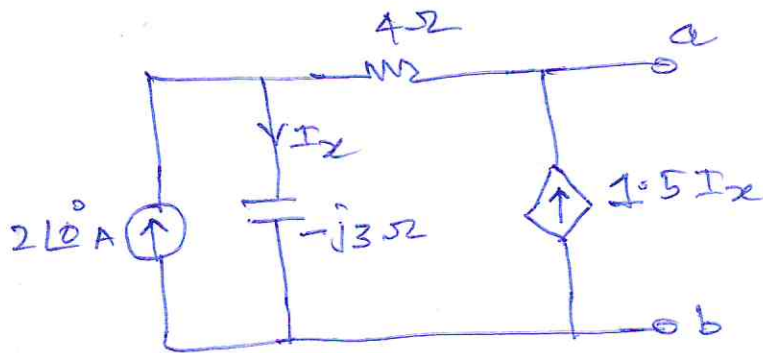


3

- ⑧ Use the method of source transformation to find I_x in the circuit below.



- ⑨ Find the Thevenin equivalent at terminals a-b of the circuit below.



- ⑩ At terminals a-b, obtain Thevenin and Norton equivalent circuits for the circuit below. Take $\omega = 10 \text{ rad/s}$.

