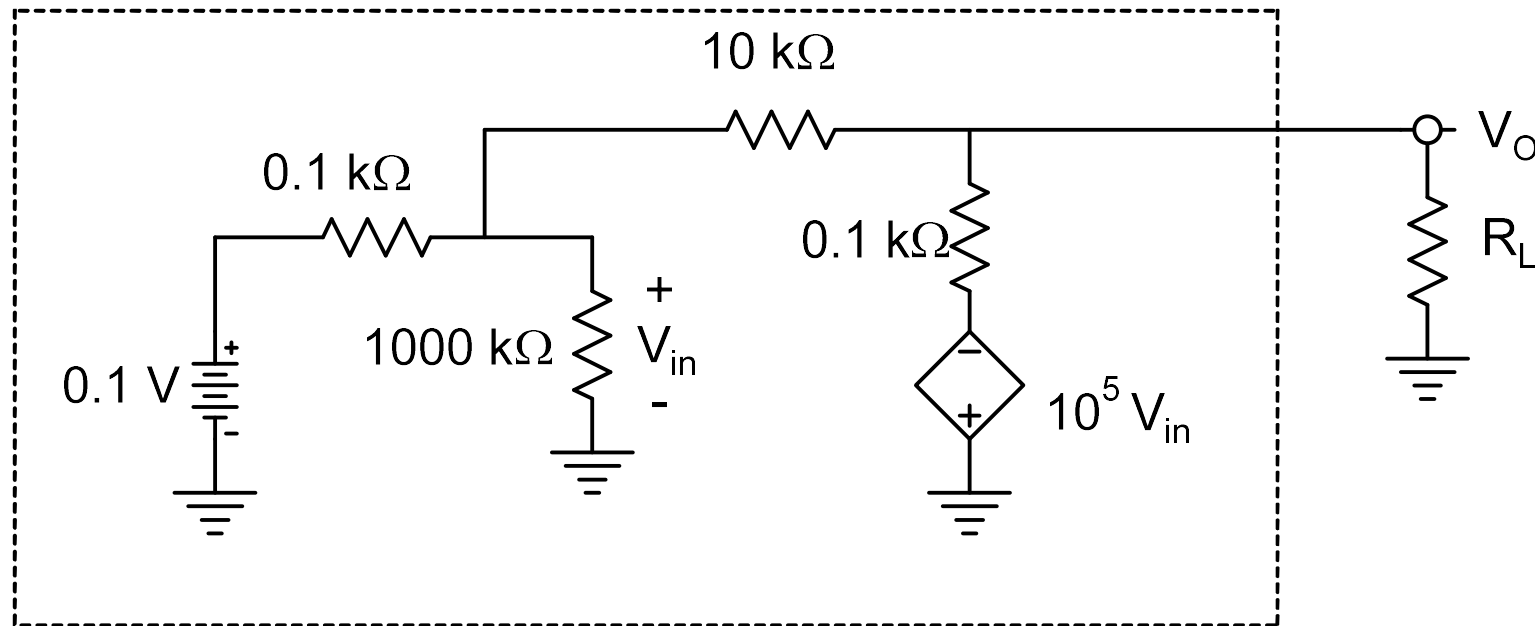


# ESC201T : Introduction to Electronics

Mid-Sem Exam -partA (18/10/2020) (Note there are 2-pages)

Time : 6-6.40PM . Stop at 6.30pm and submit within time

Q.1 Determine the Thevenins equivalent (both Thevenin voltage and Thevenin resistance) for the circuit within dotted lines between the output terminal  $V_o$  and ground. Use approximations to obtain an answer that is correct to first decimal place only. Show steps of your analysis and indicate also the approximations made-----5 marks



Q.2 Sketch the qualitative variation of output voltage  $V_o$  after Switch S is closed at  $t = 0$ . Before that, the switch was open for a long time for steady state condition to prevail and there was no charge on the capacitor. Determine the time constant of the circuit. Show all relevant steps-----5 marks

