

Welcome to
CSE250 Final
Date: 08 January, 2021
Duration: 1 hour 15 minutes + 10 minutes(for PDF)

Rules:

1. Write Your Name and Student ID in the first page of your script.
2. Do not use any any external devices except calculator.
3. No online resources are allowed
4. Place your camera in such a way that it shows your face and both hands
5. If you get disconnected from the meet link unintentionally, you must inform your faculty when you rejoin.
6. Write your answers and equations clearly.
7. After you have finished writing your answers wait for faculty's confirmation before starting to make your pdf.

1

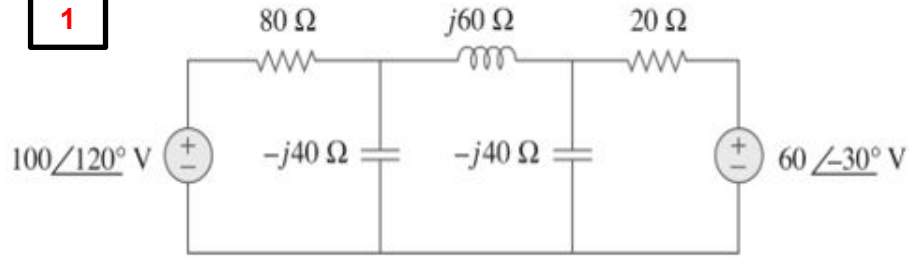


Fig: 01

Find nodes of this circuit and write all the nodal equations [Fig:01] - 10 marks

2

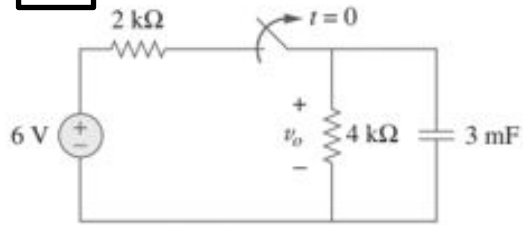


Fig: 02

The switch in Fig: 02 opens at $t=0$. Find V_o for $t > 0$. [Fig:02] -10 marks

3

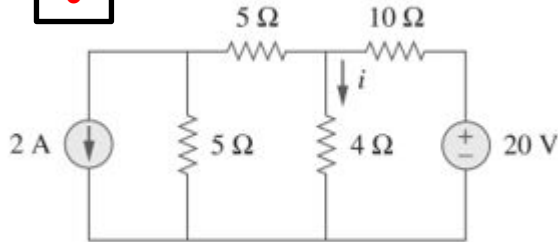


Fig: 03

Find i using Source transformation [Fig:03] -10 marks

4

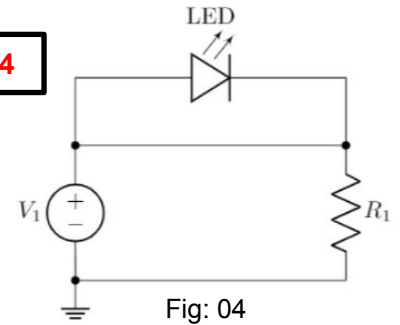


Fig: 04

How much power that LED (a passive element like a resistor) will consume? Given that, $V_1 = -1V$ and $R_1 = 16k\Omega$. [Fig:04] - 04 marks

5

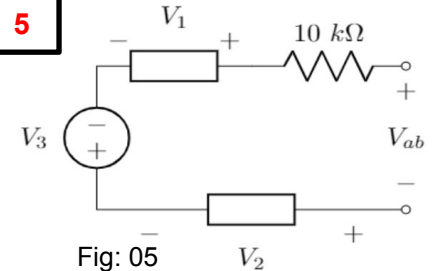


Fig: 05

Find V_{ab} when $V_1 = 100V$; $V_2 = 60V$; $V_3 = 50V$ [Fig: 05] - 06 marks