

Course: Electrical Circuits (CSE209), Section:1
Full Marks: 60

Note: There are 4 (Four) questions. Answer ALL of them. The Course outcome (CO), Cognitive level, and Mark of each question are mentioned at the right margin.

1. For **Figure 1** determine the equivalent resistance (R_{eq}), the voltage across R3 resistance, and the current through R1 resistance. [Use VDR and CDR] [CO1, C2, Mark: 15]

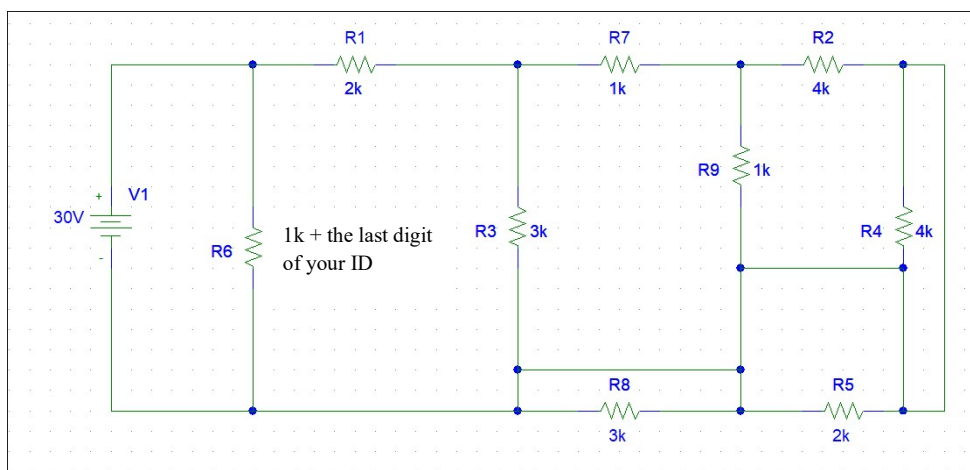


Figure. 1

2. Using nodal analysis determine the voltage V and current i in the circuit of **Figure 2**. [CO2, C3, Mark: 15]

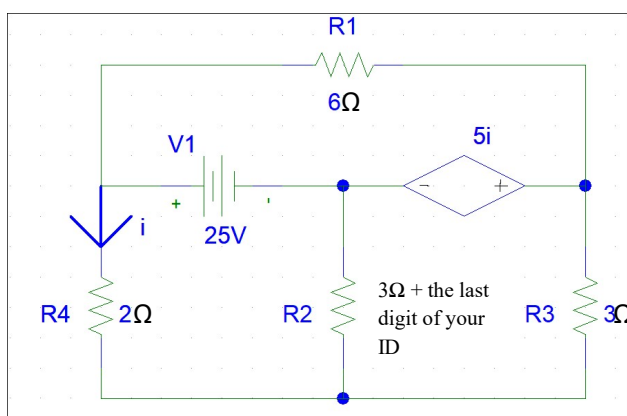


Figure. 2

3. Calculate I in the circuit of **Figure 3** using the Wye-Delta transformation.

[CO1, C2, Mark: 15]

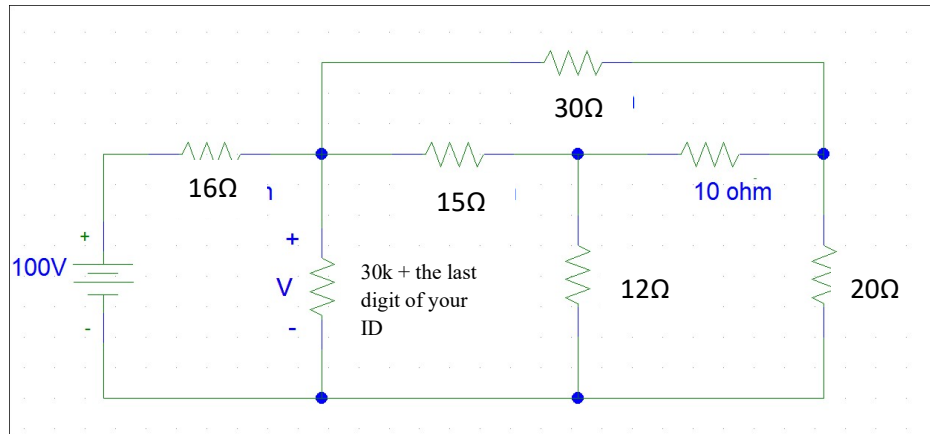


Figure. 3

4. From the circuit of **Figure 4** use mesh analysis to find the current “I”.

[CO2, C3, Mark: 15]

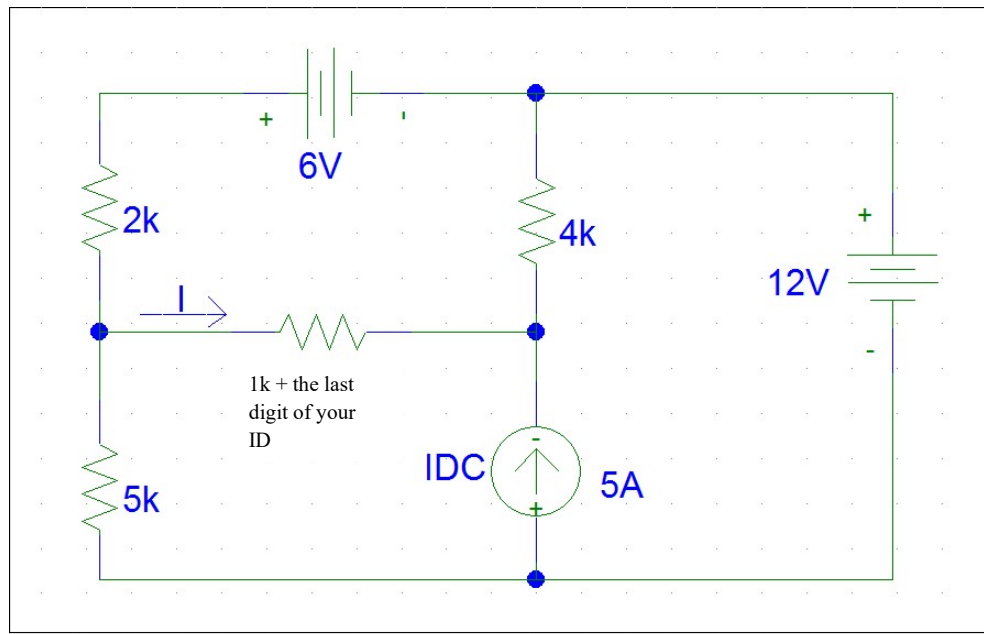


Figure. 4