Attribution Nidhal Abdulaziz

ENGG104 Tutorial 5 Class Questions

Team Name: _____

Question 1 [typical exam question]

Using superposition, find the voltage V_2 for the network in Fig. 9.123.

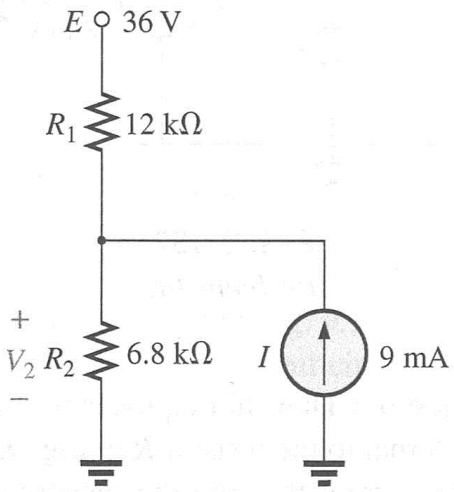

FIG. 9.123

Question 2

a. Find the Thévenin equivalent circuit for the network external to the resistor R in Fig. 9.126.

b. Find the current through R when R is 2 Ω, 30 Ω, and 100 Ω.

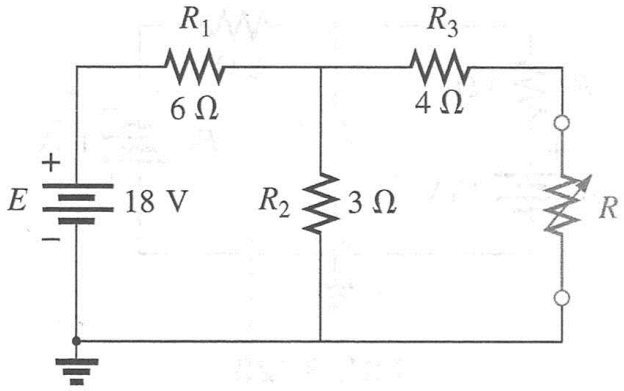

FIG. 9.126

Question 3 [typical exam question]

a. Find the Thévenin equivalent circuit for the network external to the resistor R for the network in Fig. 9.127.

b. Find the power delivered to R when R is 2 kΩ and 100 kΩ.

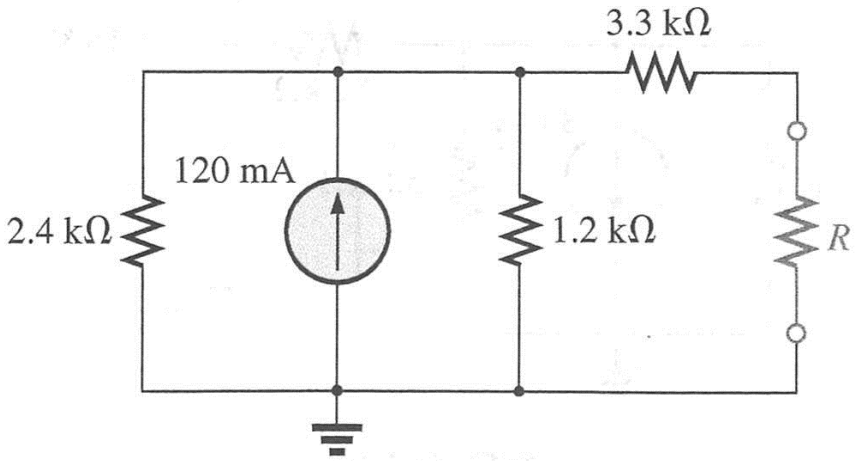

FIG. 9.127

Question 4

a. Write the nodal equations using the general approach for the network of Fig. 8.125.
b. Find the nodal voltages using determinants.
c. Using the results of part (a), calculate the current through the 20 Ω resistor.

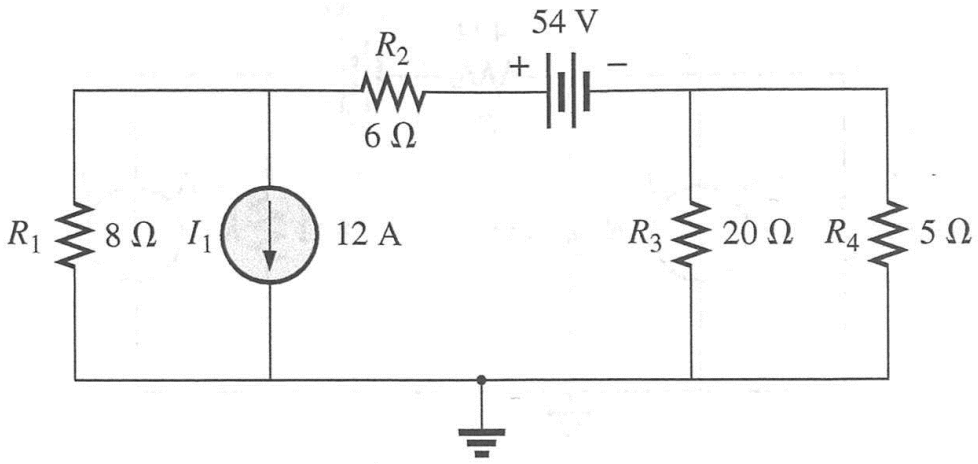

FIG. 8.125