

Tutorial - 1-02-d

Question 1

5.2 Find the Thevenin equivalent circuit for a dc power supply that has a 30-V terminal voltage when delivering 400 mA and a 27-V terminal voltage when delivering 600 mA.

Question 2

5.4 Find the Norton equivalent circuit for the power supply of Prob. 5.2 if the terminal voltage is 28 V instead of 27 V when the power supply delivers 600 mA.

Question 3

5.5 What resistor draws a current of 5 A when connected across terminals a and b of the circuit shown in Fig. 5-10?

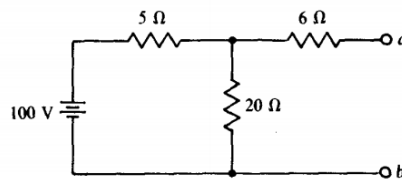


Fig. 5-10

Question 4

5.7 Find the Thevenin equivalent circuit at terminals a and b of the circuit with transistor model shown in Fig. 5-13.

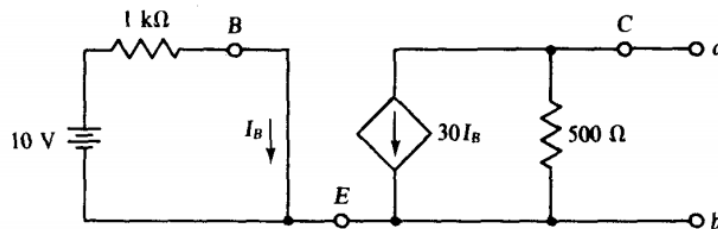


Fig. 5-13

Question 5

5.20 In the circuit of Fig. 5-28, what resistor  $R_L$  will absorb maximum power and what is this power?

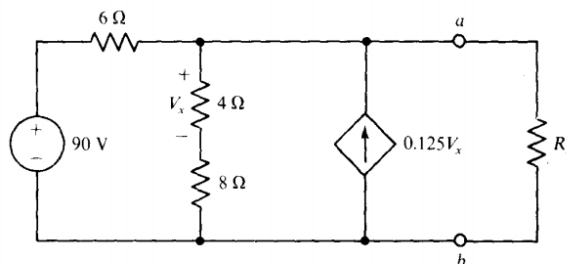


Fig. 5-28

Question 6

5.23 For the circuit shown, use superposition to find  $V_n$  referenced positive on terminal a.

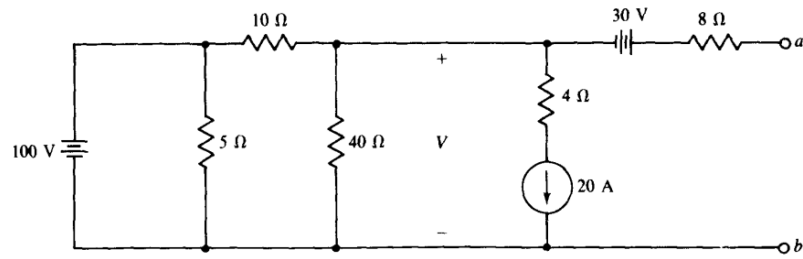


Fig. 5-18

Question 7

5.30 Use a  $\Delta$ -to-Y transformation in finding the currents  $I_1$ ,  $I_2$ , and  $I_3$  for the circuit shown in Fig. 5-34.

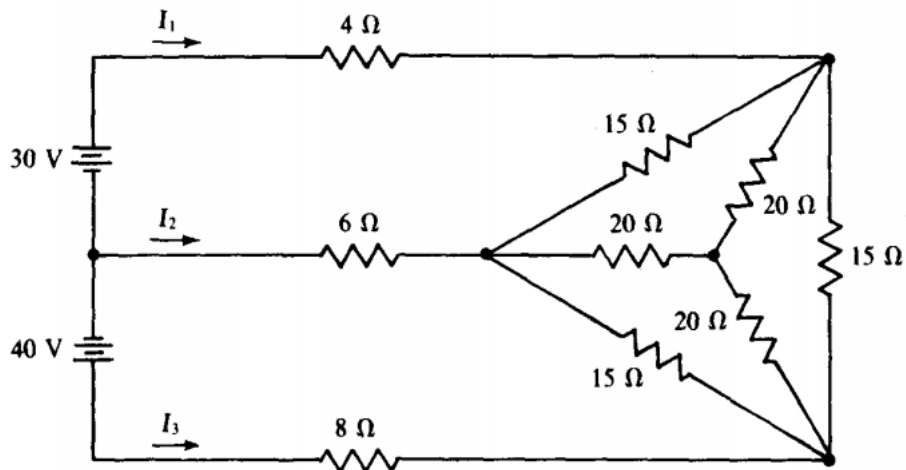


Fig. 5-34