Units 6, 7, 8 Delmars Standard Textbook of Electricity

1. What is a series circuit?

2. How is a fuse or circuit breaker connected in a circuit? Why?

3. Voltage drop across a resistor is proportional to what two values?

4. How is the total voltage drop in a series circuit calculated when you know the voltage drop across each individual resistor?

5. How is total resistance in a series circuit calculated when you know the individual resistor values?

6. What statement can be made about current at any point in a series circuit?

7. What statement can be made about the applied voltage in a series circuit?

8. What is the formula for finding current in a series circuit when you know the applied voltage and resistance?

9. What is the formula for finding the applied voltage in a series circuit when you know the amperage and resistance?

10. What is the formula for finding resistance in a series circuit when you know the applied voltage and amperage?

11. What is the formula for calculating power dissipated by each resistor?

12. How is the total power calculated in any circuit? (series, parallel, or combination)

13. How is voltage polarity determined in a circuit?

14. Don’t worry too much about voltage dividers!!

Unit 7

1. What is a parallel circuit?

2. What is the total current flow in a parallel circuit equal to?

3. What is the voltage drop across any leg of a parallel circuit?

4. Total resistance in a parallel circuit is always less than what value?
5. What is the effect on total resistance when another path is added in parallel circuit?

6. What is the formula for calculating total resistance in a parallel circuit when all the resistors are of equal value?

7. What is the product over sum method for calculating resistance in a parallel circuit?

8. What is the reciprocal formula for calculating resistance in a parallel circuit?

9. What is the total resistance for a parallel circuit with three 20 ohm resistors?

10. What is the total resistance for a parallel circuit with three 50 ohm resistors?

11. How much current will flow in the circuit from question 9 if the supply voltage is 120 volts?

12. How much current will flow in the circuit from question 10 if the supply voltage is 240 volts?

13. What is the total resistance of a parallel circuit with a 15 ohm, 20 ohm, and a 30 ohm resistor?

14. What is the current flow in the circuit in question 13 if the supply voltage is 240 volts?

15. What is the current through each path in question 13 if the voltage is 240?

16. What is the total resistance in a circuit with a 24 ohm and a 36 ohm resistor connected in parallel?

17. What is the current flow in the circuit for question 16 if the supply voltage is 36 volts?

18. What is the current through each path in the circuit from question 16?

Unit 8

1. What is a combination circuit?

2. What is the proper method to solve unknown values in a combination circuit?

3. What is the total resistance in a circuit with two 20 ohm resistors in series with each other but in parallel with a 50 ohm resistor?
4. What is the current flow in the circuit for question 3 if the supply voltage is 120 volts?

5. What is the voltage drop across each resistor and the current through each resistor in the circuit from question 3?

6. What is the power used in each part of the circuit for question 3?