

CHAPTER REVIEW

Chapter 19

Electrical Energy

I. Vocabulary Review

Unscramble the words in the following list.

1. rentcur _____
2. tnetilapo erfencedi _____
3. oltvs _____
4. ctricallee rewpo _____
5. iesser ucitric _____
6. allparel ciutcri _____

In the blank, write the word or words from the above list that best complete the sentence.

7. A _____ has only one path through which charges can flow.
8. The rate at which electrical energy is used is _____.
9. The energy change per unit charge is _____.
10. A _____ has multiple paths for current.
11. _____ is a measure of the number of charges per second that move through any location in a circuit.
12. Potential difference is measured in _____.

II. Concept Review

In the blank at the left, write the letter of the choice that best answers the question.

- _____ 13. Which one of the following is NOT a model for an electric circuit?
 - a. a water pump driving water through a pipe to a water-wheel
 - b. compressed air tool
 - c. a log burning in a fireplace
 - d. furnace and radiator

- _____ 14. What kind of energy does a battery convert to electrical energy?
 - a. mechanical
 - b. chemical
 - c. thermal
 - d. nuclear

- _____ 15. What is the energy change per unit charge?
 - a. potential difference
 - b. resistance
 - c. power
 - d. current

Chapter Review 19 (continued)

- _____ 16. What kind of current is produced by a battery?
a. AC b. DC c. ampere d. kilowatt
- _____ 17. What kind of current is produced by most electrical generators?
a. AC b. DC c. ampere d. kilowatt

III. Skills/Process Review

Solve the following problems and write the answer in the space provided.

18. What is the power provided by drinking a can of soda with 10 000 joules of energy in 100 seconds? _____
19. How much electrical energy is provided by a 60-watt light bulb burning for 1000 seconds?

20. What is the power of an appliance that is linked to a 120-volt line and has 6 amperes of current?

IV. Feature Review

21. **Science and Society: Who Pays to Control Acid Rain?** Why is the Clean Air Act likely to cause unemployment in the Midwest? _____

