Chapter 5 Practice Test

For questions 1 to 6, write the term from column B that completes the statement in column A.

A	B
1. Voltage is measured in _____.	**a)** current
2. Electric current is measured in _____.	**b)** amperes (A)
3. An electric _____ is a pathway for the flow of an electric _____.	**c)** potential difference
	d) volts (V)
4. A _____ provides more than one complete pathway for electric current.	**e)** circuit
5. Another term for voltage is _____.	**f)** parallel circuit
6. A _____ provides only one complete pathway for electric current.	**g)** series circuit
	h) energy

7. Decide whether each of the following statements is true or false. If it is false, rewrite it to make it true.

   a) True/False An electric current is larger when it enters a load.

   _____

   b) True/False If an electric circuit has two loads, the voltage across each load will be the same as the voltage across the source.

   _____

   c) True/False Energy is the ability to do work, such as making something move.

   _____

Name: _____   Date: _____

8. List two uses for LEDs.

a) _____

b) _____

9. a) Add the symbols for a battery, bulb, and switch to the circuit diagram shown.

b) On the diagram, show where you would connect a voltmeter to measure the voltage across the load.

10. a) Complete the flowchart to show how a light bulb converts electric energy to another form of useful energy.

_____ → _____ → _____

b) Complete the flowchart to show how a light bulb converts electric energy to waste energy.

_____ → _____ → _____

11. a) Vanessa's CD player uses 3000 J in 60 s. What is the power rating of her CD player? Show your work.

$$\text{Power (W)} = \frac{\text{Energy (J)}}{\text{Time (s)}}$$

b) Vanessa uses her CD player for 30 h. How much energy in kWh does the CD player use during this time? Show your work.

$$\text{Energy} = \text{Power} \times \text{Time} \qquad 1\,\text{kW} = 1000\,\text{W}$$

c) If 1 kWh costs 9.0¢, how much did it cost for Vanessa to use her CD player? Show your work.