Chapter 7

- 7.1 The following parts can be built into an integrated circuit except . . .
 - A. resistors
 - B. LEDs
 - C. transistors
 - D. capacitors
- 7.2 Which of these are advantages of integrated circuits?
 - A. Cost
 - B. Size
 - C. Reliability
 - D. All of the above.
- 7.3 The average American home has fewer than ten integrated circuits used throughout all the electronic products in it.

TRUE or FALSE?

7.4 The integrated circuits in some modern computers have more than a million transistors in them.

TRUE or FALSE?

7.5 Integrated circuit manufacturing is so specialized that particles of dust can ruin parts.

TRUE or FALSE?

Chapter 8

- 8.1 The electricity at the electrical outlets in your home . . .
 - A. is 60V.
 - B. is alternating current.
 - C. has a frequency of 120Hz.
 - D. is direct current.
- 8.2 Why do electric companies use high voltages when transporting electricity over long distances?
 - A. Higher voltages and lower currents reduce power loss in the wires.
 - B. The equipment on the receiving end needs a high voltage.
 - C. Low voltage circuits cannot transport energy over long distances.
 - D. High voltages are safer than low voltages.

- 8.3 The following are advantages of transformers except . . .
 - A. they can isolate circuits, since the connection is magnetic and not electrical.
 - B. they can change the voltage in a circuit without wasting power.
 - C. they are equally useful in both AC and DC circuits.
 - D. they allow one circuit to create a current in another using magnetic fields.
- 8.4 How can you increase the inductance of a coil?
 - A. Place an iron bar inside the coil.
 - B. Use less loops of wire in the coil.
 - C. Place a plastic bar inside the coil.
 - D. Use thicker wire in the coil.
- 8.5 Inductors are made to ...
 - A. block high frequency signals.
 - B. store electrical energy as magnetic energy.
 - C. pass low frequency signals.
 - D. all of the above.
- 8.6 Frequency modulation . . .
 - A. is less protected from interference than AM
 - B. uses one signal to change the frequency or another.
 - C. uses 7kHz channel bands.
 - D. was the first system for radio broadcasts to be widely used.
- 8.7 The electricity supplied by a battery is an example of AC power.

TRUE or FALSE?

8.8 AM radio circuits are more complex than FM radio circuits.

TRUE or FALSE?

- 8.9 The inductance of a coil is measured in Henrys. *TRUE or FALSE?*
- 8.10 The Federal Trade Commission (FTC) regulates use of the radio frequency spectrum in the United States.

TRUE or FALSE?

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