

# Chapter 37

## Respiration, Circulation, and Excretion

### Reinforcement and Study Guide

#### Section 37.1 The Respiratory System

*In your textbook, read about air passageways and lungs.*

Circle the letter of the choice that best completes the statement or answers the question.

- During the process of respiration,
  - oxygen is delivered to body cells.
  - oxygen is used in cells to produce ATP.
  - carbon dioxide is expelled from the body.
  - all of these.
- When you swallow, your epiglottis momentarily covers the top of the trachea so that
  - you can swallow more easily.
  - you can breathe more easily.
  - you don't get food in your air passages.
  - you can cough up foreign matter.
- The cilia that line your trachea and bronchi
  - produce dirt-trapping mucus.
  - help in the exchange of oxygen and CO<sub>2</sub>.
  - move mucus and dirt upward.
  - only beat when you inhale.
- The first branches off the trachea are called
  - bronchioles.
  - bronchi.
  - arterioles.
  - alveoli.
- Inside the alveoli, carbon dioxide and oxygen
  - are exchanged between air and blood.
  - are transported along microscopic tubules.
  - are produced inside cells.
  - are exchanged for other gases.
- Which is the correct sequence for the path of oxygen through the respiratory system?
  - nasal passages, bronchi, trachea, bronchioles, cells, blood, alveoli
  - cells, blood, alveoli, bronchioles, bronchi, trachea, nasal passages
  - nasal passages, blood, alveoli, bronchi, cells, trachea, bronchioles
  - nasal passages, trachea, bronchi, bronchioles, alveoli, blood, cells

*In your textbook, read about the mechanics of breathing and the control of respiration.*

For each statement below, write true or false.

- \_\_\_\_\_ 7. Homeostasis in respiration is controlled by the cerebrum.
- \_\_\_\_\_ 8. As you exhale, the bronchioles in the lungs release most of their air.
- \_\_\_\_\_ 9. When you inhale, the muscles between your ribs contract.
- \_\_\_\_\_ 10. Relaxation of the diaphragm causes a slight vacuum in the lungs.
- \_\_\_\_\_ 11. Air rushes into the lungs because the air pressure outside the body is greater than the air pressure inside the lungs.
- \_\_\_\_\_ 12. Relaxation of the diaphragm causes it to flatten.