

## The Respiratory System: Control of Respiration

1. Where in the medulla are the neurons that set the basic respiratory rhythm? \_\_\_\_\_
2. What modifies this medullary center?
  - a.
  - b.
3. What is the most important stimulus controlling ventilation? \_\_\_\_\_
4. What ion directly stimulates the central chemoreceptors? \_\_\_\_\_
5. Arterial  $P_{O_2}$  must drop below what to stimulate the peripheral chemoreceptors? \_\_\_\_\_
6. If a person hyperventilates what will happen to the following in the blood?
  - a.  $P_{CO_2}$  \_\_\_\_\_
  - b. pH \_\_\_\_\_
7. If a person hypoventilates what will happen to the following in the blood?
  - a.  $P_{O_2}$  \_\_\_\_\_
  - b.  $P_{CO_2}$  \_\_\_\_\_
8.
  - a. What does lung hyperinflation stimulate? \_\_\_\_\_
  - b. The effect on inspiration is \_\_\_\_\_.
  - c. What is this reflex called? \_\_\_\_\_
9. Dust, smoke, and noxious fumes will stimulate receptors in airways.
  - a. Name the receptors. \_\_\_\_\_
  - b. Explain the protective reflexes.
10. Name four of the six factors that probably increase ventilation during exercise.

a.

b.

c.

d.