

## Fluid, Electrolyte and Acid-Base Balance: Acid-Base Homeostasis

1. Where are acids located on the pH scale?
2. Where are bases located on the pH scale?
3. What is the normal pH range for arterial blood?
  - a. What is the pH in alkalosis? \_\_\_\_\_
  - b. What is the pH in acidosis? \_\_\_\_\_
4. How is a strong acid different from a weak acid?
5. What does it mean for a substance to be *neutral* on the pH scale?
6. Name the three ways the body maintains a normal pH range:
  - a.
  - b.
  - c.
7. List the three important buffer systems in the body:
  - a.
  - b.
  - c.
8. Write the equation showing the relationship of CO<sub>2</sub> and H<sub>2</sub>O levels with bicarbonate and hydrogen ion levels:  
  
CO<sub>2</sub> + H<sub>2</sub>O ↔ \_\_\_\_\_ ↔ \_\_\_\_\_
9. A decrease in respiration will result in \_\_\_\_\_ CO<sub>2</sub> and will shift the equation to the \_\_\_\_\_, resulting in an increase in \_\_\_\_\_ ions, making the plasma more \_\_\_\_\_.
10. When body pH is decreased, what are two compensatory renal mechanisms to restore pH?
  - a.
  - b.