

1.
 - A. What is the main cause for peripheral chemoreceptors to be activated?
 - B. What are two ways that this can happen
 - I. What are minor stimulants for peripheral chemoreceptors?
2. How is the majority of CO₂ transported in the body?
 - a. In the tissue
 - b. In RBC
 - c. In the plasma
 - d. Through air
3. Which of the following combinations would allow a person to inspire?
 - a. Dorsal Respiratory Group (DRG) is inhibited, Ventral Respiratory Group (VRG) is stimulated
 - b. DRG is stimulated, VRG is inhibited
 - c. DRG is stimulated, VRG is stimulated
 - d. DRG is inhibited, VRG is inhibited
4. Explain how low P_{O2} stimulates the body to hyperventilate
 - a. Low P_{O2} triggers _____ in glomus cells to close, causing the cell to _____. This causes voltage gated _____ channels to open, further depolarizing the cell until an action potential is sent to _____. These then send signals to the _____ which stimulates hyperventilation.
5. Which disease would a person climbing Mt. Everest most likely develop?
 - a. Cardiac thrombosis
 - b. Pulmonary thrombosis
 - c. Pulmonary Edema
 - d. Acidosis
 - e. Alkalosis
6. Explain why the climber would be likely to develop this particular disease.

7. What two purposes does the conversion of CO₂ to HCO₃ serve?
8. Explain why CO₂ forms HCO₃ and H⁺ in the systemic capillaries, but HCO₃ and H⁺ form CO₂ in pulmonary capillaries.
9. What is the chloride shift and what does it accomplish?

11. What is a buffer, give an example.

11. During acidosis, which type of cells are activated, what is their location, and what do they do?

- A. Intercalated type B cells, distal tubule, secrete H^+ and reabsorb $HC03^-$
- B. Intercalated type A cells, proximal tubule, secrete H^+ and reabsorb $HC03^-$
- C. Intercalated type A cells, distal tubule, secrete H^+ and reabsorb $HC03^-$
- D. Intercalated type B cells, distal tubule, secrete H^+ and $HC03^-$

12. What condition may develop from extended acidosis compensation?

- A. Alkalosis
- B. Hyperkalemia
- C. Hypokalemia
- D. Cyanosis

13. Which of the following would not be a cause for alkalosis?

- A. Hyperventilation
- B. Vomiting for a long period of time
- C. Taking an excess of Tums (antacids)
- D. Hypoventilation