

## QUIZ 7

- B** 1. During an unforced exhalation/expiration, all of the following are true except
- A. Alveolar pressure is greater than atmospheric pressure
  - B. Intrapleural pressure is greater than alveolar pressure
  - ~~C. Transpulmonary pressure decreases~~
  - ~~D. The diaphragm relaxes~~
  - ~~E. Lung volume decreases~~
- E** 2. Compared to a normal person, a person experiencing metabolic acidosis will have
- A. Increased renal secretion of hydrogen ion
  - B. Increased renal reabsorption of bicarbonate ion
  - C. Increased arterial partial pressure of CO<sub>2</sub>.
  - D. Both A and B
  - E. All of the choices are correct
- C** 3. The kidneys respond to hypoventilation by
- A. Increasing their secretion of H<sup>+</sup> and increasing their reabsorption of HCO<sub>3</sub><sup>-</sup>
  - B. Increasing their secretion of H<sup>+</sup> and decreasing their reabsorption of HCO<sub>3</sub><sup>-</sup>
  - C. Decreasing their secretion of H<sup>+</sup> and increasing their reabsorption of HCO<sub>3</sub><sup>-</sup>
  - D. Decreasing their secretion of H<sup>+</sup> and decreasing their reabsorption of HCO<sub>3</sub><sup>-</sup>
  - E. None of these choices
- D** 4. That the lung surface and the thoracic wall will move in and out together, rather than separately, during ventilation is assured by the
- A. Diaphragm
  - B. Inhalatory/inspiratory intercostal muscles
  - C. Exhalatory/expiratory intercostal muscles
  - D. Intrapleural fluid
  - E. Alveoli
- B** 5. Hypoventilation is a cause of
- A. Metabolic acidosis
  - B. Respiratory acidosis
  - C. Metabolic alkalosis
  - D. Respiratory alkalosis
  - E. None of these things

- A 6. In order for the lungs to function normally, the intrapleural pressure must
- A. Be lower than alveolar pressure
  - B. Be between +5 and +10 mm Hg above atmospheric pressure
  - C. Alternate between being less than and greater than atmospheric pressure
  - D. Change as the respiratory demands of the body change
  - E. Be the same as atmospheric pressure

- B 7. Under normal circumstances, an increase in transpulmonary pressure will result in
- A. Inhalation/inspiration
  - B. Exhalation/expiration
  - C. A collapsed lung
  - D. All of these things
  - E. None of these things

- C 8. The pleural sac
- A. Protects lungs from infection
  - B. Prevents collapse of the lungs
  - C. Contains a large volume of surfactant
  - D. Supports the chest wall and keeps it from collapsing into lungs
  - E. Both B and D

- C 9. Inhalation/inspiration occurs as a result of
- A. An upward movement of the diaphragm
  - B. Movement of the ribs closer together due to contraction of the inspiratory/inhalatory intercostal muscles
  - C. A downward movement of the diaphragm
  - D. Both A and B
  - E. Both B and C

- B 10. Carbonic anhydrase catalyzes the chemical combination of
- A.  $\text{H}_2\text{O}$  and  $\text{O}_2$
  - B.  $\text{H}_2\text{O}$  and  $\text{CO}_2$
  - C.  $\text{H}_2\text{O}$  and  $\text{CO}$
  - D.  $\text{H}^+$  and  $\text{HCO}_3^-$
  - E. None of these choices