Practice Questions Ch 12

1. Which of the following statements about intrapulmonary and intrapleural pressure is true?
   A. The intrapulmonary pressure is always below atmospheric.
   B. The intrapleural pressure is always greater than the intrapulmonary pressure.
   C. The intrapulmonary pressure is greater than the intrapleural pressure.
   D. the intrapleural pressure equals the atmospheric pressure.

2. Hemoglobin’s affinity for oxygen is decreased under
   A. acidosis. 
   B. exposure to carbon monoxide. 
   C. acclimatization to high altitudes.
   D. increased body temperature.
   E. increased blood levels of 2,3-DPG.
   F. All of these.

3. Hypoventilation can cause
   A. metabolic acidosis.
   B. respiratory acidosis.
   C. metabolic alkalosis.
   D. respiratory alkalosis.

4. The chemoreceptors in the medulla are directly stimulated by decreased
   A. pH of arterial blood.
   B. pH of venous blood.
   C. pH of CSF in the brain.
   D. arterial O2
   E. arterial CO2
   F. Both A & C

5. The rhythmic control of breathing is produced by the activity of inspiratory and expiratory neurons in the
   A. medulla oblongata.
   B. apneustic center of the pons.
   C. pneumotaxic center of the pons.
   D. primary motor cortex.
   E. midbrain.

6. Which of the statements about partial pressure of carbon dioxide is true?
   A. It is higher in the alveoli than in the pulmonary arteries.
   B. It is higher in the systemic arteries than in the tissues.
   C. It is higher in the systemic veins than in the systemic arteries.
   D. It is higher in the pulmonary veins than in the pulmonary arteries.

7. The conducting zone contains all of the following EXCEPT
   A. the primary bronchi.
   B. the larynx.
   C. the terminal bronchioles.
   D. the respiratory bronchioles.

8. Inhalation and accumulation of particles less than 6 mm (rock, glass, or coal dust) in size can cause
   A. asthma.
   B. emphysema.
   C. cystic fibrosis.
   D. pulmonary fibrosis.

9. During inspiration,
   A. alveolar pressure exceeds atmospheric pressure.
   B. transpulmonary pressure increases.
   C. the diaphragm relaxes.
   D. intrapulmonary pressure is below atmospheric pressure.
10. What law states that the pressure of a given quantity of gas is inversely proportional to its volume?
   A. Boyle's Law B. Charles Law C. Dalton's Law
   D. Henry's Law E. LaPlace’s Law

11. The tendency of the lungs to return to their initial size after stretching is
   A. compliance. B. recoil. C. surface tension.
   D. None of the choices are correct.

12. What condition is marked by an accumulation of protein-rich fluid in the lungs due to permeability changes triggered by the inflammatory response to systemic infection?
   A. emphysema B. chronic obstructive pulmonary disease (COPD) C. pulmonary fibrosis
   D. pneumothorax E. acute respiratory distress syndrome (ARDS)

13. According to who's law, is the pressure in a small alveolus greater than a large alveolus as long as the surface tension is equal?
   A. Boyle's Law B. Charles Law C. Dalton's Law
   D. Henry's Law E. LaPlace’s Law

14. Quiet inspiration will ____ thoracic and lung volume and _____ intrapulmonary pressure.
   A. increase, increase B. increase, decrease C. decrease, increase
   D. decrease, decrease

15. Normal arterial PO2 is
   A. 40 mm Hg. B. 46 mm Hg. C. 85 mm Hg.
   D. 100 mm Hg E. 120 mmHg
Ch 12. Answers:
1. C
2. F
3. B
4. C
5. A
6. C
7. D
8. D
9. D
10. A
11. B
12. E
13. E
14. B
15. D

How did you do?