

Quiz VIA February 16, 2006

1. Which of the following is correct (going outward):
 - a. Tunica intima, tunica centralis, tunica externa.
 - b. Tunica externa, tunica media, tunica intima.
 - c. Tunica centralis, tunica intima, tunica externa.
 - d. Tunica intima, tunica media, tunica externa.
 - e. Tunica externa, tunica centralis, tunica intima.

2. Which of the following is true:
 - a. Arteries are thicker than veins.
 - b. Arterial recoil constricts the lumen; veins tend to collapse.
 - c. Veins lack endothelial folds.
 - d. Veins have valves.
 - e. All of the above.

3. What is false about capillaries:
 - a. Are the only vessels for exchange to surrounding interstitial tissues.
 - b. Have thin walls.
 - c. Have fast blood flow for diffusion or active transport.
 - d. Is essentially an endothelium inside a basal lamina.
 - e. Have no tunica media or tunica externa.

4. A blood vessel with high capacitance such as a vein:
 - a. Will hold a large volume of blood at a given blood pressure.
 - b. Will have a high blood pressure at a given volume of blood.
 - c. Will have a high resistance at a given blood volume.
 - d. Will hold a small amount of blood at a given blood pressure.
 - e. None of the above.

5. Which of the following statements is false:
 - a. Blood flow increases with an increase in pressure.
 - b. Blood flow decreases with an increase in resistance.
 - c. Resistance increases with an increase in blood pressure.
 - d. Resistance increases as vessel diameter increases.
 - e. Resistance increases as vessel length increases.

6. Resistance may be influenced by which of the following:
 - a. Density of blood.
 - b. Blood vessel diameter.
 - c. Velocity of blood flow.
 - d. Viscosity of blood flow.
 - e. All of the above.

7. Muscular compression and the respiratory pump are important mechanisms for:
 - a. Pushing venous blood into the right atrium.
 - b. Pushing venous blood into the left atrium.
 - c. Pushing venous blood out of the capillaries.
 - d. Pushing venous blood into the capillaries.
 - e. Pushing venous blood into the interstitial fluid.

8. Which of the following occur across a capillary?
 - a. Diffusion.
 - b. Filtration.
 - c. Reabsorption.
 - d. Only b and c.
 - e. a, b and c.

9. Filtration occurs at the arterial end of a capillary because the:
 - a. Hydrostatic pressure is larger.
 - b. Net filtration pressure is a positive number.
 - c. Blood colloid osmotic pressure is smaller.
 - d. Capillary blood pressure is higher at the arteriole side.
 - e. All of the above.

10. Which of the following vessels carry oxygen rich blood:
 - a. Pulmonary artery and superior vena cava.
 - b. Pulmonary artery and aorta.
 - c. Pulmonary vein and umbilical artery.
 - d. Pulmonary vein and umbilical vein.
 - e. Pulmonary artery and umbilical vein.

11. Vessels that make a direct connection between arterioles and venules are:
- Metarteriole.
 - Thoroughfare channel.
 - Arterial anastomosis.
 - Collateral artery.
 - Arteriovenous anastomosis.
12. The formation of a plaque on the endothelial lining is:
- Artherosclerosis.
 - Aneurism.
 - Edema.
 - Thrombus.
 - Embolism.
13. Which of the following is not part of the upper respiratory system?
- Larynx.
 - Nose.
 - Nasal cavity.
 - Paranasal sinuses.
 - Pharynx.
14. Which of the following are functions of the respiratory system.
- Provide extensive surface area for gas exchange.
 - Movement of air to and from the exchange surfaces.
 - Protection of respiratory surfaces.
 - Vocalization.
 - All of the above.
15. Gas exchange with the circulatory system occurs at the:
- Larynx.
 - Trachea.
 - Alveoli.
 - Bronchioles.
 - None of the above.

16. The alveolar epithelium is composed of:
- Pseudostratified ciliated columnar epithelium.
 - Stratified squamous epithelium.
 - Cuboidal epithelium.
 - Simple squamous epithelium.
 - None of the above.
17. A respiratory disorder in which fluid leaks into the alveoli is called:
- Cystic fibrosis.
 - Emphysema.
 - Asthma.
 - Pneumonia.
 - Pulmonary embolism.
18. Boyle's law is the basis for pulmonary ventilation and it means that:
- An increase in volume will decrease pressure and air is sucked in.
 - An increase in volume will increase pressure and air is sucked in.
 - A decrease in volume will increase pressure and air is sucked in.
 - A decrease in volume will decrease pressure and air is sucked in.
 - None of the above.
19. The amount of air you move into or out of your lungs during a single respiratory cycle is called the:
- Residual volume.
 - Vital capacity.
 - Total lung capacity.
 - Tidal volume.
 - Expiratory reserve volume.
20. Only 350 ml of air reaches the alveoli. The volume of air left in the conducting passageways is the:
- Inspiratory reserve volume.
 - Functional residual capacity.
 - Minimal volume.
 - Inspiratory capacity.
 - Anatomical dead space.

21. The oxygen-hemoglobin saturation curve is sigmoidal because:
- Oxygen molecules bind heme two at a time.
 - Oxygen molecules bind heme four at once.
 - Oxygen molecules bind heme with successively higher affinities.
 - Oxygen molecules bind heme irreversibly.
 - None of the above.
22. Which of the following statements is true about oxygen and hemoglobin?
- An increase in pH increases the affinity of oxygen.
 - Fetal hemoglobin has a higher affinity for oxygen than adult hemoglobin.
 - An increase in 2,3-bisphosphoglycerate decreases the affinity for oxygen.
 - An increase in temperature decreases the affinity of oxygen.
 - All of the above.
23. Most of the carbon dioxide is transported:
- Dissolved in plasma.
 - Bound to the protein portion of hemoglobin.
 - As carbonic acid.
 - Bound to the heme of hemoglobin.
 - None of the above.
24. Respiratory reflexes use:
- Receptors sensitive to pH.
 - Receptors sensitive to pO₂.
 - Receptors sensitive to stretch.
 - Receptors sensitive to blood pressure.
 - All of the above.
25. How easily the lungs expand and contract:
- Determines the compliance of the lungs.
 - Is dependent on the integrity of the connective tissue structure of the lungs.
 - Requires sufficient surfactant levels.
 - Requires adequate thoracic cage mobility.
 - All of the above.