Respiratory System Study Questions
Dr. J. Lim

Utilize your notes and textbook to answer the following questions.

1. The respiratory system works together with the __________________ system to supply _______ to cells and rid ________ from the cells.
2. The entire respiratory tract is lined with respiratory ___________________.
3. Cellular respiration occurs within this cellular organelle. ____________________
4. Complete this equation describing cellular respiration.
   \[ \text{Oxygen} + \underline{\text{__________}} \rightarrow \text{ATP} + \underline{\text{__________}} \]
5. The vocal cords (folds) are found in this structure. ____________________
6. The respiratory disorder that involves the loss of alveolar surface area is called ____________________.
7. Another name for the windpipe is the ________________.
8. List three functions of respiratory mucosa.
9. The trachea splits inferiorly into a pair of ____________________.
10. The answer in Q9 splits repeatedly to form many ____________________.
11. The slit-like passageway between the vocal cords is called the ____________________.
12. Name the common passageway in the back of the throat that both food and air pass through. ____________________.
13. The blood in the pulmonary artery is high in oxygen. T or F
14. The blood in the pulmonary vein is high in oxygen. T or F
15. Oxygen and carbon dioxide exchange in external respiration requires ATP. T or F
16. Which structure is called the “guardian of the airway?” ________________
17. Describe the position of the structure in Q17 while breathing. ________________
18. Describe the position of the structure in Q17 while swallowing. _______________
19. What does the larynx do when swallowing? ________________
20. Towards which structure do the cilia of the trachea beat? ________________
21. The “end of the road” for ventilated air is the structure that resembles a cluster of grapes called ____________________.
22. The process by which gas exchange occurs between an alveolus and capillaries is called ____________________
23. Internal respiration involves gas exchange between ____________________
24. Oxygen binds to iron molecules in the ____________________ of red blood cells.

Circle the correct underlined choice
25. With inspiration, the rib cage moves up and out/down and in and the diaphragm contracts/relaxes and moves up/down.
26. With expiration, the rib cage moves up and out/down and in and the diaphragm contracts/relaxes and moves up/down.
27. Air moves passively during this event of ventilation. expiration/inspiration
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Utilize your notes and textbook to answer the following questions.

1. The respiratory system works together with the cardiovascular system to supply oxygen to cells and rid carbon dioxide from the cells.
2. The entire respiratory tract is lined with respiratory mucosa.
3. Cellular respiration occurs within this cellular organelle. mitochondria
4. Complete this equation describing cellular respiration.
   \[ \text{Oxygen} + \text{glucose} \rightarrow \text{ATP} + \text{CO}_2 \]
5. The vocal cords (folds) are found in this structure. larynx
6. The respiratory disorder that involves the loss of alveolar surface area is called emphysema.
7. Another name for the windpipe is the trachea.
8. List three functions of respiratory mucosa.
   - Warms, filters, and moistens inhaled air
9. The trachea splits inferiorly into a pair of bronchi.
10. The answer in Q9 splits repeatedly to form many bronchioles.
11. The slit-like passageway between the vocal cords is called the glottis.
12. Name the common passageway in the back of the throat that both food and air pass through. pharynx.
13. The blood in the pulmonary artery is high in oxygen. False
14. The blood in the pulmonary vein is high in oxygen. True
15. Oxygen and carbon dioxide exchange in external respiration requires ATP. False
16. Which structure is called the “guardian of the airway?” epiglottis
17. Describe the position of the structure in Q17 while breathing. up
18. Describe the position of the structure in Q17 while swallowing. tips down over larynx
19. What does the larynx do when swallowing? moves up
20. Towards which structure do the cilia of the trachea beat? pharynx
21. The “end of the road” for ventilated air is the structure that resembles a cluster of grapes called alveoli.
22. The process by which gas exchange occurs between an alveolus and capillaries is called passive diffusion.
23. Internal respiration involves gas exchange between blood vessels and body cells.
24. Oxygen binds to iron molecules in the hemoglobin of red blood cells.

Circle the correct underlined choice
25. With inspiration, the rib cage moves up and out and the diaphragm contracts and moves down.
26. With expiration, the rib cage moves down and in and the diaphragm relaxes and moves up.
27. Air moves passively during this event of ventilation. inspiration