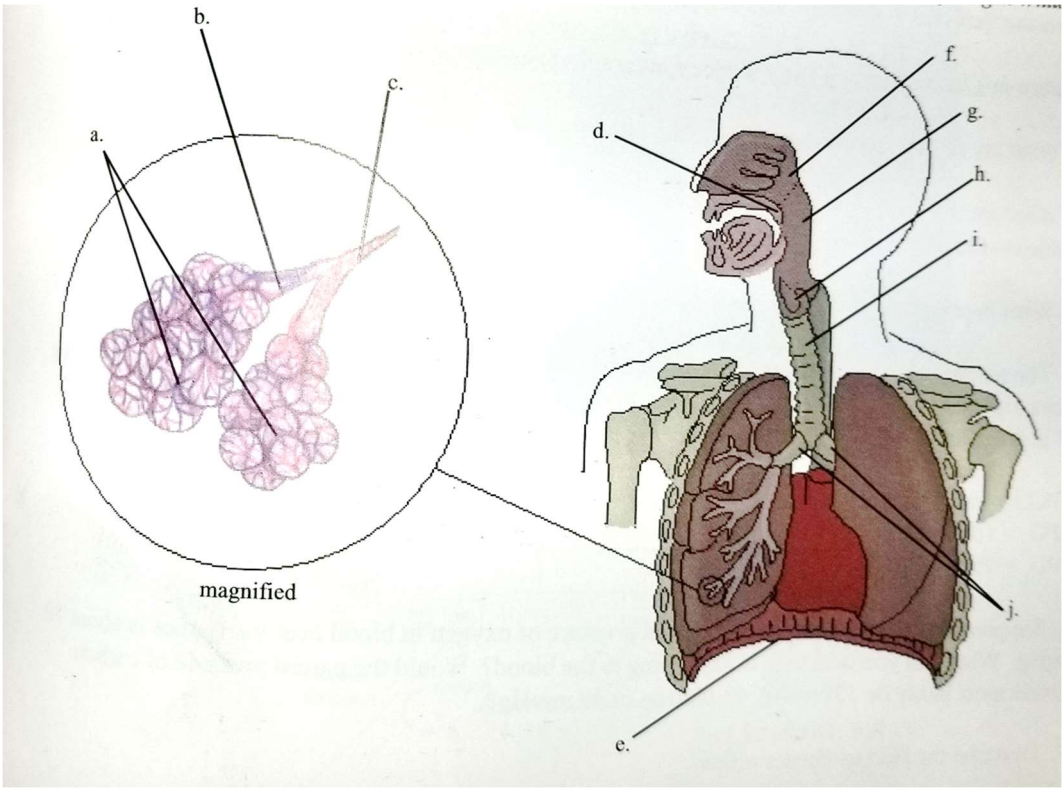
Module 14 A & P

Assignment #1 Read pages 415 – 427.

Write the answers on your own paper, not on this sheet.

1. Define the following terms:
   a. Upper respiratory tract
   b. Lower respiratory tract
   c. Ventilation
   d. External respiration
   e. Internal respiration

2. Identify the structures in the diagram:



3. List the functions of the false vocal cords (vestibular folds). List the function of the true vocal cords.

4. Name the muscles used in principal inspiration.

5. Name the muscles used in principal expiration.

6. Name the muscles used in forced inspiration.

7. Name the muscles used in forced expiration.

8. A person inhales forcefully.
    a. What muscles are contracted?
    b. Is the thoracic cavity increasing or decreasing in size?
    c. During inhalation, is the air pressure in the lungs higher or lower than the atmospheric pressure?
9. What two factors aid in expelling air from the lungs?
10. What two factors help prevent total lung collapse and aid inspiration?
11. When in a healthy person's life is compliance at its lowest?
12. Name two respiratory disorders or diseases mentioned in the chapter so far and the cause of each disorder or disease.

Assignment #2 Read pages 427 – 443.

13. Define the following terms:
    a. Aspirate
    b. Tidal volume
    c. Functional residual capacity
    d. Total lung capacity
    e. Residual volume

14. What are six factors that increase the efficiency of external respiration?

15. List the six layers that gases travel through to get from an alveolus to the bloods stream.

16. What is pneumonia? What does it do to inhibit respiration?

17. The partial pressure of carbon dioxide in blood is increasing as the blood passes through capillaries. Are these capillaries in the lungs or in the body tissue?

18. The partial pressure of oxygen at Point A is 104 mmHg. The partial pressure of oxygen at Point B is 40 mmHg. If these pressures were measured at an alveolus, is Point B in the lung tissue or in the capillary?

19. Describe the Hering-Breuer reflex.

20. What parts of the CNS control the muscles of breathing?

21. The human body does not detect the level of oxygen in the body when it controls breathing. What gas does it detect?

22. If the pH of blood is increasing, what will happen to the rate and depth of ventilation?

23. List the 4 stages of aerobic respiration and the number of ATPs formed in each step.

24. Honors: What is the function of NAD+?

25. Honors: What happens to the hydrogen ions once they are at the inner membrane?