Name: _____ **Class:** _____ **Date:** _____ **ID: C**

Respiratory System H.W

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. When the diaphragm contracts, the chest cavity becomes —
a. larger, causing increased pressure in the chest.
b. smaller, causing increased pressure in the chest.
c. smaller, causing decreased pressure in the chest.
d. larger, causing decreased pressure in the chest.

____ 2. Inside the alveoli, carbon dioxide and oxygen
a. are exchanged for other gases.
b. are transported along microscopic tubules.
c. are produced inside cells.
d. are exchanged between air and blood.

____ 3. As a result of osmotic pressure, water, glucose, and waste products are filtered into which part of the nephron?
a. Distal tubule
b. Ureter
c. Urethra
d. Bowman's capsule

____ 4. What controls the rate of breathing?
a. Hypothalamus
b. Hippocampus
c. Medulla oblongata
d. Cerebellum

____ 5. What antibodies does the sample shown in Figure 37-4 have?
a. B
b. A
c. both
d. neither

____ 6. When you swallow, your epiglottis momentarily covers the top of the trachea so that
a. you don't get food in your air passages.
b. you can breathe more easily.
c. you can swallow more easily.
d. you can cough up foreign matter.

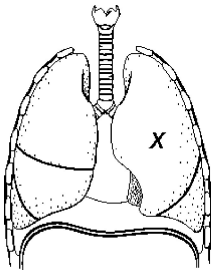

Figure 37-3

____ 7. How would the diaphragm change in Figure 37-3 in order to inhale?
a. flatten and go higher
b. expand and go higher
c. flatten and lower
d. expand and lower

____ 8. What would happen to the diaphragm in Figure 37-3 during a cough?
a. it would relax
b. it would remain still
c. it would move up rapidly
d. it would flutter

____ 9. Approximately what is the gas concentration at the point marked X in Figure 37-3 if it is at a high pressure?
a. more oxygen, more carbon dioxide
b. more oxygen, less carbon dioxide
c. less oxygen, more carbon dioxide
d. less oxygen, less carbon dioxide

____ 10. Which of the following structures is the site of gas exchange during respiration?
a. Alveoli
b. Larynx
c. Trachea
d. Bronchi

____ 11. The first branches off the trachea are called
a. alveoli.
b. bronchioles.
c. arterioles.
d. bronchi.

____ 12. Which organ filters blood that has collected wastes from cells throughout the body and maintains the homeostasis of body fluids?
a. lungs
b. kidneys
c. pacemaker
d. heart

____ 13. Where does air go after passing the epiglottis?
a. Stomach
b. Lungs
c. Larynx
d. Pharynx

____ 14. The cilia that line your trachea and bronchi
a. produce dirt-trapping mucus.
b. move mucus and dirt upward.
c. help in the exchange of oxygen and CO2.
d. only beat when you inhale.

____ 15. During the process of respiration,
a. carbon dioxide is expelled from the body.
b. oxygen is used in cells to produce ATP.
c. oxygen is delivered to body cells.
d. all of these.

____ 16. Which of the following is true of breathing?
a. homeostatic process
b. involuntary process
c. coordinated process
d. all of these

____ 17. Which is the correct sequence for the path of oxygen through the respiratory system?
a. cells, blood, alveoli, bronchioles, bronchi, trachea, nasal passages
b. nasal passages, trachea, bronchi, bronchioles, alveoli, blood, cells
c. nasal passages, blood, alveoli, bronchi, cells, trachea, bronchioles
d. nasal passages, bronchi, trachea, bronchioles, cells, blood, alveoli

____ 18. The process that uses oxygen to break down glucose, producing energy, takes place _____.
a. within cells
b. in alveoli
c. when the diaphragm contracts
d. only in the lungs

____ 19. Which of the following is the shape of the diaphragm when it is in the exhaling position?
a. flat
b. circular
c. triangular
d. dome shape

____ 20. Which of the following is associated with cellular respiration?
a. ATP formation
b. metabolic processes
c. gas exchange in cells
d. all of these

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True/False
Indicate whether the statement is true or false.

____ 21. Relaxation of the diaphragm causes it to flatten.

____ 22. The respiratory system uses oxygen in the breakdown of glucose in cells in order to provide energy in the form of ATP.

____ 23. Carbon dioxide and oxygen are the waste products of cellular respiration.

____ 24. Homeostasis in respiration is controlled by the cerebrum.

____ 25. Breathing is controlled by changes in the chemistry of the blood, which cause the medulla oblongata to react.

____ 26. When your diaphragm contracts, the space in the chest cavity becomes larger.

____ 27. When you inhale, the muscles between your ribs contract.

____ 28. Air rushes into the lungs because the air pressure outside the body is greater than the air pressure inside the lungs.

____ 29. Relaxation of the diaphragm causes a slight vacuum in the lungs.

____ 30. As you exhale, the bronchioles in the lungs release most of their air.

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