

NAME _____

DATE _____

SPMD 201 – Human Anatomy for Sports Medicine
Respiratory System
Chapter 23

Multiple Choice

- _____1. Which of the following is part of the upper respiratory tract?
- A. larynx
 - B. pharynx
 - C. trachea
 - D. bronchi
- _____2. The nasal septum:
- A. divides the nose into right and left chambers.
 - B. forms the floor of the nasal cavity.
 - C. is the opening of the nose to the outside environment.
 - D. is the part of the nose responsible for the sense of smell.
- _____3. Which of the following is a passageway for both air and food?
- A. trachea
 - B. larynx
 - C. pharynx
 - D. bronchus
- _____4. When these ligaments or folds come together, they prevent food from entering the larynx.
- A. vocal folds
 - B. vestibular folds
 - C. cricothyroid folds
 - D. epiglottic folds
- _____5. From the largest to smallest, the correct sequence for the following passageways is:
- A. bronchi, bronchioles, respiratory bronchioles, terminal bronchioles, alveoli.
 - B. bronchioles, terminal bronchioles, respiratory bronchioles, bronchi, alveoli.
 - C. alveoli, bronchioles, terminal bronchioles, respiratory bronchioles, bronchi.
 - D. bronchi, bronchioles, terminal bronchioles, respiratory bronchioles, alveoli.

- _____6. The respiratory zone of the tracheobronchial tree includes which of the following?
- A. trachea
 - B. alveoli
 - C. primary bronchi
 - D. larynx
- _____7. Each lobe of each lung is supplied by a:
- A. primary bronchi.
 - B. secondary bronchi.
 - C. tertiary bronchi.
 - D. bronchiole.
- _____8. Which of the following muscles increases the volume of the thorax during normal inspiration?
- 1. diaphragm
 - 2. external intercostals
 - 3. internal obliques
 - 4. rectus abdominus
- A. 1, 2
 - B. 1, 3
 - C. 2, 3
 - D. 2, 4
 - E. 3, 4
- _____9. Surfactant facilitates alveolar ventilation by:
- A. decreasing the surface tension between water molecules on the lining of the alveoli.
 - B. decreasing thoracic compliance.
 - C. attracting water to the alveolar surface.
 - D. increasing the surface area for gas exchange.
- _____10. Gas exchange between the air in the lungs and the blood takes place in the:
- A. trachea.
 - B. bronchi.
 - C. terminal bronchioles.
 - D. alveoli.

Alternate Choice

1. The right and left primary bronchi are considered extra- / intra- (circle one) pulmonary.
2. The *windpipe* is another name for the esophagus / trachea (circle one).
3. The external nares refer to the nostrils / vocal cords (circle one).
4. The larynx / pharynx (circle one) is shared by both the digestive tract and respiratory tract.
5. Terminal bronchi are considered part of the conducting / respiratory (circle one) zone.
6. Surfactant decreases / increases (circle one) surface tension in the alveoli.
7. The left lung generally has three / two (circle one) lobes.
8. Pectoralis major does / does not (circle one) act as an accessory muscle in quiet respiration.
9. Contraction of the diaphragm decreases / increases (circle one) thoracic volume.
10. Sympathetic stimulation of the smooth muscle in the trachea decreases / increases (circle one) the diameter of the trachea.

Fill-In

1. The primary muscle of respiration is the _____.
2. The structure that surrounds and protects the glottis and contains the “vocal cords” is called the _____.
3. The tough, flexible tube that begins at the larynx and divides into right and left primary bronchi is called the _____.
4. The substance that coats the pulmonary alveolar surfaces to stabilize the alveolar volume by reducing surface tension is called _____.
5. The region of the pharynx that is posterior to the oral cavity is called the _____.
6. The structures of the nasal cavity that cause air to swirl or eddy, thereby promoting the warming and moisturizing of the air, are called _____.
7. The opening between the vocal cords is called the _____.

Short Answer

1. List the structures of the tracheobronchial tree (in order) through which a molecule of air will pass on the way to the exchange membrane. State whether these structures are part of the conducting zone or respiratory zone.
2. List the three regions of the pharynx.
3. List and describe the structures of the upper respiratory tract and the upper respiratory tract.
4. Discuss the role of the superior, middle, and inferior conchae.
5. List the muscles of the thorax proper; the accessory muscles of respiration; and the abdominal muscles involved in respiration. What roles do these muscles play in inspiration/expiration?

Multiple Choice

- | | |
|------|-------|
| 1. B | 6. B |
| 2. A | 7. B |
| 3. C | 8. A |
| 4. B | 9. A |
| 5. D | 10. D |

Alternate Choice

- | | |
|---------------|---------------|
| 1. extra- | 6. decreases |
| 2. trachea | 7. two |
| 3. nostrils | 8. does not |
| 4. pharynx | 9. increases |
| 5. conducting | 10. increases |

Fill-In

1. diaphragm
2. larynx
3. trachea
4. surfactant
5. oropharynx
6. conchae
7. glottis