MODULE 1 - Respiratory System Test

Name: _____ **Date: _____**

Multiple Choice Questions

Choose the best answer for each question.

1. **What is the primary function of the respiratory system?**
   - A) Digestion of food
   - B) Transport of oxygen to the body
   - C) Production of hormones
   - D) Filtration of blood

2. **Which of the following structures is responsible for gas exchange in the lungs?**
   - A) Trachea
   - B) Bronchi
   - C) Alveoli
   - D) Diaphragm

3. **What muscle plays a major role in breathing by contracting and relaxing to allow air into the lungs?**
   - A) Biceps
   - B) Diaphragm
   - C) Quadriceps
   - D) Trapezius

4. **Which gas is primarily taken in during inhalation?**
   - A) Carbon dioxide
   - B) Nitrogen
   - C) Oxygen
   - D) Hydrogen

5. **Where does external respiration occur?**

- A) Inside the cells
- B) In the alveoli of the lungs
- C) In the bloodstream
- D) In the nasal cavity

True or False - *Indicate whether the statement is true or false.*

6. **The trachea is also known as the windpipe.**
    - True / False

7. **The respiratory system is part of the endocrine system.**
    - True / False

8. **Carbon dioxide is expelled from the body during exhalation.**
    - True / False

9. **The larynx contains the vocal cords.**
    - True / False

10. **The bronchi divide into smaller bronchioles within the lungs.**
    - True / False

Short Answer Questions

11. **Describe the pathway air takes from the nose to the alveoli.**
12. **Explain the role of hemoglobin in the respiratory system.**
13. **What is the difference between internal and external respiration?**
14. **How does the diaphragm facilitate breathing?**
15. **List two factors that can affect the rate of respiration.**

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16. Which of the following is the main muscle involved in breathing?

a) Triceps
b) Diaphragm
c) Hamstrings
d) Quadriceps

17. What is the primary function of the alveoli in the lungs?

a) Transporting oxygen throughout the body
b) Exchanging oxygen and carbon dioxide
c) Protecting the lungs from infections
d) Filtering the air entering the lungs

18. Which structure connects the throat (pharynx) to the lungs?

a) Bronchi
b) Esophagus
c) Trachea
d) Larynx

19. During inhalation, the diaphragm:

a) Relaxes and moves upward
b) Contracts and moves downward
c) Remains stationary
d) Expands to compress the lungs

20. What happens to the oxygen we inhale?

a) It is absorbed by the stomach
b) It is exchanged for carbon dioxide in the alveoli
c) It is stored in the muscles for later use
d) It dissolves in the bloodstream directly

21. Which of the following is a common respiratory condition caused by narrowing of the airways?

a) Pneumonia
b) Asthma
c) Bronchitis
d) Tuberculosis

22. What gas is expelled during exhalation?

a) Nitrogen
b) Hydrogen
c) Oxygen
d) Carbon dioxide

23. The small hair-like structures that help to remove dust and other particles from the respiratory tract are called:

a) Bronchioles
b) Alveoli
c) Cilia
d) Goblet cells

24. What part of the brain controls the basic rate of respiration? (NOTE -This is not in your module 1 however you can research into this further)

a) Cerebellum
b) Medulla oblongata
c) Hypothalamus
d) Cerebrum

25. Which disease is primarily caused by long-term smoking and leads to destruction of the alveoli?

a) Emphysema
b) Asthma
c) Tuberculosis
d) Pneumonia

Answer Key

Multiple Choice:

1. B) Transport of oxygen to the body
2. C) Alveoli
3. B) Diaphragm
4. C) Oxygen
5. B) In the alveoli of the lungs

True or False: 6. True 7. False 8. True 9. True 10. True

Short Answer Suggestions:

11. *Air enters through the nose or mouth, passes through the pharynx and larynx, travels down the trachea, enters the bronchi, branches into bronchioles, and finally reaches the alveoli where gas exchange occurs.*
12. *Hemoglobin is a protein in red blood cells that binds to oxygen in the lungs and transports it to tissues throughout the body. It also helps carry carbon dioxide back to the lungs for exhalation.*
13. *External respiration refers to the exchange of gases between the lungs and the blood, while internal respiration refers to the exchange of gases between the blood and the body's cells.*
14. *The diaphragm contracts and moves downward during inhalation, creating more space in the chest cavity and allowing the lungs to expand and fill with air. It relaxes and moves upward during exhalation, pushing air out of the lungs.*
15. *Factors include physical activity level, altitude, presence of respiratory diseases (like asthma or COPD), emotional state (stress or anxiety), and environmental factors (pollution, temperature).*

16. **b) Diaphragm**
17. **b) Exchanging oxygen and carbon dioxide**
18. **c) Trachea**
19. **b) Contracts and moves downward**
20. **b) It is exchanged for carbon dioxide in the alveoli**
21. **b) Asthma**
22. **d) Carbon dioxide**
23. **c) Cilia**
24. **b) Medulla oblongata**
25. **a) Emphysema**

This test gives you a basic assessment of your knowledge of the respiratory system for your Module 1!