**Chapter 11 Pre-Test A**

**Multiple Choice**

*Identify the choice that best completes the statement or answers the question.*

**\_\_\_\_ 1.** Which of the following processes occurs when the rib muscles contract?

|  |  |
| --- | --- |
| **a.** | exhalation ends  |
| **b.** | inhalation ends  |
| **c.** | inhalation begins  |
| **d.** | exhalation begins  |

**\_\_\_\_ 2.** The trachea is

|  |  |
| --- | --- |
| **a.** | the opening to the larynx.  |
| **b.** | the air tube that connects the mouth to the lungs.  |
| **c.** | the flap that covers the windpipe when eating or drinking.  |
| **d.** | the area in the throat that is a passageway for both air and food.  |

**\_\_\_\_ 3.** Thealveoli are

|  |  |
| --- | --- |
| **a.** | sacs at the end of bronchioles. |
| **b.** | tubes branching from the trachea.  |
| **c.** | tubes branching from the bronchi. |
| **d.** | thin membranes covering the lungs.  |

**\_\_\_\_ 4.** An acute asthma attack is best treated with an inhaler that

|  |  |
| --- | --- |
| **a.** | relaxes the bronchiole muscles. |
| **b.** | protects the alveoli membranes.  |
| **c.** | protects the bronchioles from dust. |
| **d.** | prevents the accumulation of fluid in the pleural membrane. |

**\_\_\_\_ 5.** Emphysema is a condition in which

|  |  |
| --- | --- |
| **a.** | a sticky mucus clogs the lungs.  |
| **b.** | the bronchioles become inflamed. |
| **c.** | the alveoli are stretched and burst. |
| **d.** | bacteria destroy the elasticity of the pleural membrane.  |

**\_\_\_\_ 6.** Which of the following structures is lined with cilia?

|  |  |
| --- | --- |
| **a.** | alveoli |
| **b.** | trachea |
| **c.** | bronchioles |
| **d.** | pleural membranes |



**\_\_\_\_ 7. Use the diagram above to answer the next question.**

Structure E represents

|  |  |
| --- | --- |
| **a.** | the trachea. |
| **b.** | an alveolus. |
| **c.** | the bronchus. |
| **d.** | the bronchiole. |

**\_\_\_\_ 8.** Which of the following structures are responsible for regulating breathing?

|  |  |
| --- | --- |
| I | aortic bodies |
| II | carotid bodies |
| III | medulla oblongata |

|  |  |
| --- | --- |
| **a.** | III only |
| **b.** | I and II only |
| **c.** | I and III only |
| **d.** | I, II, and III |



**\_\_\_\_ 9. Use the diagram above to answer the next question.**

Which of the numbered structures is coated in lipoprotein to prevent collapse?

|  |  |
| --- | --- |
| **a.** | 7 |
| **b.** | 8 |
| **c.** | 9 |
| **d.** | 10 |

**\_\_\_\_ 10. Use the diagram above to answer the next question**

Which numbered structure is specially adapted to increase surface area?

|  |  |
| --- | --- |
| **a.** | 7 |
| **b.** | 8 |
| **c.** | 9 |
| **d.** | 10 |

**\_\_\_\_ 11.** What role does cilia perform in the respiratory system?

|  |  |
| --- | --- |
| **a.** | produce debris |
| **b.** | move mucus upward |
| **c.** | constrict diameter of bronchioles |
| **d.** | send message to brain to stop inhalation |

**\_\_\_\_ 12.** Which of the following events occurs **first** during exhalation?

|  |  |
| --- | --- |
| **a.** | Stretch receptors signal the medulla oblongata. |
| **b.** | Medulla oblongata senses high level of carbon dioxide. |
| **c.** | Diaphragm contracts and flattens to increase thoracic volume. |
| **d.** | Diaphragm relaxes and becomes dome-like to reduce thoracic volume. |

**\_\_\_\_ 13.** Which of the following responses will accompany an increase in systolic blood pressure?

|  |  |
| --- | --- |
| **a.** | lower rate of external respiration |
| **b.** | increased stimulation of the diaphragm |
| **c.** | less air will enter the alveoli during inhalation |
| **d.** | decreased concentration of oxyhemoglobin in pulmonary capillaries |

**\_\_\_\_ 14.** Which of the following responses occur if the rate of cellular respiration increases in body cells?

|  |  |
| --- | --- |
| **a.** | Volume of exhaled air will decrease. |
| **b.** | Diaphragm contraction rate will decrease. |
| **c.** | Concentration of oxyhemoglobin will increase. |
| **d.** | Concentration of reduced hemoglobin will increase. |

**\_\_\_\_ 15.** Which of the following effects will increased activity in the thyroid gland have on respiration?

|  |  |
| --- | --- |
| **a.** | rate of diaphragm contractions will decrease |
| **b.** | levels of bicarbonate ion in blood will decrease |
| **c.** | rate of intercostal muscle contractions will increase |
| **d.** | levels of carbaminohemoglobin in blood will decrease |

**\_\_\_\_ 16.** Which of the following effects will a rise in thyroxin have on blood composition?

|  |  |
| --- | --- |
| **a.** | concentration of HHb will decrease |
| **b.** | concentration of HCO3- will increase |
| **c.** | concentration of HbO2 will increase |
| **d.** | concentration of HbCO3 will decrease |

**\_\_\_\_ 17.** Which of the following events stops inhalation and starts exhalation?

|  |  |
| --- | --- |
| **a.** | oxygen level in blood increases |
| **b.** | stretch receptors expand in size |
| **c.** | diaphragm shape becomes dome-like |
| **d.** | carbon dioxide level in blood increases |

**\_\_\_\_ 18.** Under what conditions will the following reaction occur?



|  |  |
| --- | --- |
| **a.** | lower pH and cooler temperature |
| **b.** | higher pH and cooler temperature |
| **c.** | lower pH and warmer temperature |
| **d.** | higher pH and warmer temperature |

**\_\_\_\_ 19.** Which of the following conditions will cause hemoglobin to release the oxygen it was carrying?

|  |  |
| --- | --- |
| **a.** | lower pH and cooler temperature |
| **b.** | higher pH and cooler temperature |
| **c.** | lower pH and warmer temperature |
| **d.** | higher pH and warmer temperature |

**\_\_\_\_ 20.** Under which of the following conditions will hemoglobin bind with oxygen?

|  |  |
| --- | --- |
| **a.** | lower pH and cooler temperature |
| **b.** | higher pH and cooler temperature |
| **c.** | lower pH and warmer temperature |
| **d.** | higher pH and warmer temperature |

**\_\_\_\_ 21.** Under which of the following conditions will hemoglobin bind with carbon dioxide?

|  |  |
| --- | --- |
| **a.** | lower pH and cooler temperature |
| **b.** | higher pH and cooler temperature |
| **c.** | lower pH and warmer temperature |
| **d.** | higher pH and warmer temperature |

**\_\_\_\_ 22. Use the diagram above to answer the next question.**

Which numbered structure has a nerve connection to the medulla oblongata?

|  |  |
| --- | --- |
| **a.** | 2 |
| **b.** | 3 |
| **c.** | 4 |
| **d.** | 5 |

**\_\_\_\_ 23. Use the table below to answer the next question.**

|  |  |
| --- | --- |
| **X** | **Y** |
|  carries air in both directions | carries air in both directions |
|  covered with cilia that trap particles | wall contains smooth muscle |
|  cartilage rings hold it open all the time | muscles constrict to control air flow |

Which of the following structures are described above?

|  |  |
| --- | --- |
| **a.** | X = alveoli; Y = trachea |
| **b.** | X = bronchus; Y= alveoli |
| **c.** | X = trachea; Y= bronchiole |
| **d.** | X = bronchiole; Y = bronchus |

**\_\_\_\_ 24.** Which of the following conditions will cause inspiration?

|  |  |
| --- | --- |
| **a.** | low concentration of HHb |
| **b.** | low concentration of HbO2 |
| **c.** | low concentration of HCO3-  |
| **d.** | low concentration of HbCO2 |

**\_\_\_\_ 25.** Which of the following structures is covered in lipoprotein to prevent collapse?

|  |  |
| --- | --- |
| **a.** | alveoli |
| **b.** | bronchi |
| **c.** | trachea |
| **d.** | bronchioles |

**Chapter 11 Pre-Test A**

**Answer Section**

**MULTIPLE CHOICE**

 **1.** ANS: C PTS: 1 DIF: K REF: 11

OBJ: Respiratory System LOC: C9-1 TOP: 11.2

KEY: Breathing Mechanisms

 **2.** ANS: B PTS: 1 DIF: K REF: 11

OBJ: Respiratory System LOC: C8-1 TOP: 11.1

KEY: Respiratory Tract

 **3.** ANS: A PTS: 1 DIF: K REF: 11

OBJ: Respiratory System LOC: C8-1 TOP: 11.1

KEY: Respiratory Tract

 **4.** ANS: A PTS: 1 DIF: K REF: 11

OBJ: Respiratory System LOC: C-S TOP: 11.4

KEY: Respiratory System Disorders

 **5.** ANS: D PTS: 1 DIF: K REF: 11

OBJ: Respiratory System LOC: C-S TOP: 11.4

KEY: Respiratory System Disorders

 **6.** ANS: B PTS: 1 DIF: K REF: 11

OBJ: Respiratory System LOC: C8-2 TOP: 11.1

KEY: Respiratory Tract

 **7.** ANS: A PTS: 1 DIF: K REF: 11

OBJ: Respiratory System LOC: C8-1 TOP: 11.1

KEY: Respiratory Tract

 **8.** ANS: D PTS: 1 DIF: K REF: 11

OBJ: Respiratory System LOC: C9-4 TOP: 11.2

KEY: Breathing Mechanisms

 **9.** ANS: D PTS: 1 DIF: U REF: 11

OBJ: Respiratory System LOC: C8-1 TOP: 11.1

KEY: Respiratory Tract

 **10.** ANS: D PTS: 1 DIF: U REF: 11

OBJ: Respiratory System LOC: C8-1 TOP: 11.1

KEY: Respiratory Tract

 **11.** ANS: B PTS: 1 DIF: U REF: 11

OBJ: Respiratory System LOC: C8-2 TOP: 11.1

KEY: Respiratory Tract

 **12.** ANS: A PTS: 1 DIF: U REF: 11

OBJ: Respiratory System LOC: C9-2 TOP: 11.2

KEY: Breathing Mechanisms

 **13.** ANS: B PTS: 1 DIF: HMP REF: 11

OBJ: Respiratory System LOC: C9-3 TOP: 11.2

KEY: Breathing Mechanisms

 **14.** ANS: D PTS: 1 DIF: HMP REF: 11

OBJ: Respiratory System LOC: C9-3 TOP: 11.2

KEY: Breathing Mechanisms

 **15.** ANS: C PTS: 1 DIF: HMP REF: 11

OBJ: Respiratory System LOC: C9-1 TOP: 11.2

KEY: Breathing Mechanisms

 **16.** ANS: B PTS: 1 DIF: HMP REF: 11

OBJ: Respiratory System LOC: C9-1 TOP: 11.2

KEY: Breathing Mechanisms

 **17.** ANS: B PTS: 1 DIF: U REF: 11

OBJ: Respiratory System LOC: C9-1 TOP: 11.2

KEY: Breathing Mechanisms

 **18.** ANS: B PTS: 1 DIF: U REF: 11

OBJ: Respiratory System LOC: C10-1 TOP: 11.3

KEY: Gas Exchange

 **19.** ANS: C PTS: 1 DIF: U REF: 11

OBJ: Respiratory System LOC: C10-1 TOP: 11.3

KEY: Gas Exchange

 **20.** ANS: B PTS: 1 DIF: U REF: 11

OBJ: Respiratory System LOC: C10-1 TOP: 11.3

KEY: Gas Exchange

 **21.** ANS: C PTS: 1 DIF: U REF: 11

OBJ: Respiratory System LOC: C10-1 TOP: 11.3

KEY: Gas Exchange

 **22.** ANS: D PTS: 1 DIF: U REF: 11

OBJ: Respiratory System LOC: C9-1 TOP: 11.2

KEY: Breathing Mechanisms

 **23.** ANS: C PTS: 1 DIF: U REF: 11

OBJ: Respiratory System LOC: C8-1 TOP: 11.1

KEY: Respiratory Tract

 **24.** ANS: B PTS: 1 DIF: U REF: 11

OBJ: Respiratory System LOC: C9-2 TOP: 11.2

KEY: Breathing Mechanisms

 **25.** ANS: A PTS: 1 DIF: U REF: 11

OBJ: Respiratory System LOC: C8-1 TOP: 11.1

KEY: Respiratory Tract