Human aandp ch. 22 respiratory system



Name: Date: | Link to: 22. 1 Inhaled air travels in the upper respiratory system 1. | Which of the following is not part of the upper respiratory system? | A)| Nose| B)| Oral cavity| C)| Pharynx| D)| Trachea| E)| Nasal meatuses| Ans:| D| | Link to: 22. 1 Inhaled air travels in the upper respiratory system 2. The conducting zone does NOT act to A) clean air of debris. | B)| conduct air into the lungs. | C)| add water to air. | D)| warm air. | E)| It does all of the above. | Ans: | E| | Link to: 22. 1 Inhaled air travels in the upper respiratory system 3. Which of the following is a passageway for air and food? | A)| Pharynx| B)| Larynx| C)| Paranasal sinuses| D)| Trachea| E)| Esophagus| Ans:| A| | Link to: 22. 1 Inhaled air travels in the upper respiratory system 4. The opening to the pharynx from the mouth is called A) Palatine B) Hypopharynx C) Meatuses D) Fauces E)| Vestibule| Ans:| D| | Link to: 22. 2 Inhaled air travels in the lower respiratory system 5. This structure prevents food or water from entering the trachea. | A)| Arytenoid cartilage| B)| Epiglottis| C)| Nasopharynx| D)| Thyroid cartilage | E) | Paranasal sinus | Ans: | B | | Link to: 22. Inhaled air travels in the lower respiratory system 6. | During swallowing, which structure rises? | A)| Pharynx| B)| esophagus| C)| Trachea| D)| Palatine tonsils| E)| Primary bronchi| Ans: | A| | Link to: 22. 2 Inhaled air travels in the lower respiratory system 7. | These are triangular pieces of mostly hyaline cartilage located at the posterior and superior border of the cricoid cartilage. | A)| Corniculate cartilage| B)| Arytenoids cartilage| C)| Cricotracheal cartilage | D) | Cuneiform cartilage | E) | Laryngeal cartilage | Ans: | B | Link to: 22. 2 Inhaled air travels in the lower respiratory system 8. Pitch is controlled by A) vibration of the vocal chords. | B) tension of the vocal chords. | C) layers of cartilage in the vocal chords. | D)| arrangement of the vocal chords.

- | E)| None of the above| Ans:| B| | Link to: 22. 2 Inhaled air travels in the lower respiratory system| 9. | This is located anterior to the esophagus and carries air to the bronchi. | A)| Trachea| B)| Larynx| C)| Nasopharynx| D)| Pharynx| E)| None of the above| Ans:| A| | Link to: 22. 2 Inhaled air travels in the lower respiratory system| 10. | This is the primary gas exchange site. | A)| Trachea| B)| Bronchiole| C)| Nasal sinuses|
- D)| Alveolus| E)| Bronchus| Ans:| D| | Link to: 22. 2 Inhaled air travels in the lower respiratory system| 11. | Which of the below tissues maintains open airways in the lower respiratory system? | A)| Stratified squamous epithelium with keratin| B)| Ciliated pseudostratified columnar epithelium with goblet cells| C)| Hyaline cartilage| D)| Mucus membrane| E)| Bone| Ans:| C| | Link to: 22. 2 Inhaled air travels in the lower respiratory system| 12. | Which of the below tissues provides the functions of the inner layer of the conducting organs? | A)| stratified squamous epithelium with keratin|
- B)| ciliated pseudostratified columnar epithelium with goblet cells| C)| cilated cuboidal epithelium with goblet cells| D)| transitional epithelium with cilia| E)| columnar connective tissue with goblet cells| Ans:| B| | Link to: 22. 2 Inhaled air travels in the lower respiratory system| 13. | The point where the trachea divides into right and left primary bronchi is a ridge called:| A)| Carina| B)| Secondary bronchioles| C)| Parietal pleura| D)| Visceral pleura| E)| Diaphragm| Ans:| A| | Link to: 22. 2 Inhaled air travels in the lower respiratory system| 14. | Which of the below tissues forms the exchange surfaces of the alveolus? A)| Stratified squamous epithelium| B)| Ciliated pseudostratified columnar epithelium with goblet cells| C)| Simple squamous epithelium| D)| Hyaline cartilage| E)| Columnar connective tissue with goblet

cells| Ans:| C| | Link to: 22. 2 Inhaled air travels in the lower respiratory system| 15. | These are cells of the alveoli that produce surfactant. | A)| Type I alveolar cells| B)| Type II alveolar cells| C)| Type III alveolar cells| D)| Surface cells| E)| Macrophages| Ans:| B| | Link to: 22. 3 Inhalation and exhalation| 16. | This is direction of diffusion of gases at capillaries near systemic cells. | A)| Oxygen into blood, Carbon dioxide into blood|

B)| Oxygen out of blood, Carbon dioxide into blood| C)| Oxygen into blood, Carbon dioxide out of blood| D)| Oxygen out of blood, Carbon dioxide out of blood| E)| None of the above is correct. | Ans:| B| | Link to: 22. 3 Inhalation and exhalation| 17. | This is direction of diffusion of gases at the alveoli of the lungs. | A)| Oxygen into blood, Carbon dioxide into blood| B)| Oxygen out of blood, Carbon dioxide into blood| C)| Oxygen into blood, Carbon dioxide out of blood| D)| Oxygen out of blood, Carbon dioxide out of blood| E)| None of the above is correct. | Ans:| C| | Link to: 22. 3 Inhalation and exhalation| 18. | Exhalation begins when|

A)| Inspiratory muscles relax| B)| Diaphragm contracts| C)| Blood circulation is the lowest| D)| Inspiratory muscles relax and the diaphragm contracts| E)|
All of the above| Ans:| A| | Link to: 22. 3 Inhalation and exhalation| 19. | This means the lungs and the chest wall expand easily. | A)| High surface tension|
B)| Low surface tension| C)| High compliance| D)| Low compliance| E)| None of the above| Ans:| C| | Link to: 22. 4 Lung volumes| 20. | The conducting airways with the air that does not undergo gas exchange are known as the|
A)| inspiratory volume. | B)| expiratory reserve volume. | C)| minimal volume.
| D)| residual volume. | E)| anatomic dead space. Ans:| E| | Link to: 22. 4 Lung volumes| 21. | This is the sum of the residual and the expiratory reserve

volume. | A)| Total lung capacity| B)| Functional residual capacity| C)| Inspiratory capacity | D) | Vital capacity | E) | Minimal volume | Ans: | B | Link to: 22. 6 Respiration 22. | Which of the following is not a factor that the rate of pulmonary and systemic gas exchange depends on? | A)| Partial pressure difference of the gases | B) | Surface area for gas exchange | C) | Diffusion distance| D)| Molecular weight and solubility of the gases| E)| Force of contraction of diaphragm Ans: | E | | Link to: 22. 7 Oxygen is primarily transported 23. Which is the dominant method of carbon dioxide transport? | A)| Bound to hemoglobin| B)| Bound to oxygen| C)| Dissolved in plasma as a gas| D)| Dissolved in plasma as bicarbonate ions| E)| Diffusion| Ans:| D| | Link to: 22. 10 Acid-base balance 24. When blood pH drops then the amount of oxyhemoglobin and oxygen delivery to the tissue cells . | A)| increases, increases| B)| Increases, decreases| C)| Decreases, increases | D) | Decreases, decreases | E) | Does not change, does not change Ans: C | Link to: 22. 7 Oxygen is primarily transported 25. Which is a factor that does NOT affect hemoglobin's affinity for oxygen? A) pH of blood| B)| Partial pressure of the oxygen| C)| Amount of oxygen available | D) | Temperature | E) | Respiratory rate | Ans: | E| Use the following to answer guestions 26-36: | Reference: Ref 22-1Link to: 22. 1 Inhaled air travels in the upper respiratory system 26. Where are the nasal conchae? A)| A| B)| C| C)| T| D)| U| E)| V| Ans:| B| | Reference: Ref 22-1Link to: 22. 1 Inhaled air travels in the upper respiratory system 27. | Where is the lingual tonsil? | A)| C| B)| E| C)| N| D)| P| E)| F| Ans:| E| | Reference: Ref 22-1Link to: 22. 1 Inhaled air travels in the upper respiratory system 28. | Which tonsils are found in the oropharynx? A)| V| B)| R| C)| S| D)| Q| E)| U| Ans:| B| | Reference: Ref 22-1Link to: 22. 1 Inhaled air travels in the upper respiratory

system 29. | What is also referred to as the Adam's Apple? | A) | G | B) | H | C) | I| D)| || E)| K| Ans:| D| | Reference: Ref 22-1Link to: 22. 1 Inhaled air travels in the upper respiratory system 30. | Where is the larynx? | A) | | B) | M | C) | L D)| N| E)| O| Ans: A| Reference: Ref 22-1Link to: 22. 1 Inhaled air travels in the upper respiratory system 31. This is a ring of hyaline cartilage that forms the inferior wall of the larynx. | A)| || B)| K| C)| G| D)| H| E)| O| Ans:| B| | Reference: Ref 22-1Link to: 22. Inhaled air travels in the upper respiratory system 32. | Where is the uvula? | A) | E | B) | F | C) | Q | D) | S | E) | U | Ans: | D | | Reference: Ref 22-1Link to: 22. 1 Inhaled air travels in the upper respiratory system 33. | Where are the palatine tonsils? | A)| E| B)| F| C)| R| D)| U| E)| None of the above Ans: | C| | Reference: Ref 22-1Link to: 22. 1 Inhaled air travels in the upper respiratory system 34. | Where is the soft palate? | A)| C| B)| E| C)| G| D)| Q| E)| S| Ans:| B| | Reference: Ref 22-1Link to: 22. 1 Inhaled air travels in the upper respiratory system 35. | Where is the epiglottis? | A)| O| B)| R| C)| S| D)| F| E)| Q| Ans:| A| Reference: Ref 22-1Link to: 22. 1 Inhaled air travels in the upper respiratory system 36. | Where are the olfactory receptors found? | A)| A| B)| B| C)| C| D)| D| E)| U| Ans:| B| Use the following to answer questions 37-40: | Reference: Ref 22-2Link to: 22. 2 Inhaled air travels in the lower respiratory system 37. | What is line D pointing to? | A)| Thyrohyoid membrane| B)| Arytenoid cartilage| C)| Cricothyroid ligament | D) | Cricoid cartilage | E) | Tracheal cartilage | Ans: | B | | Reference: Ref 22-2Link to: 22. 2 Inhaled air travels in the lower respiratory system 38. | Where is the cricoid cartilage? | A)| D| B)| E| C)| F| D)| G|

E)| H| Ans:| E| | Reference: Ref 22-2Link to: 22. 2 Inhaled air travels in the lower respiratory system| 39. | Where is the tracheal cartilage? | A)| J| B)| I|

C)| H| D)| G| E)| F| Ans:| A| | Reference: Ref 22-2Link to: 22. 2 Inhaled air travels in the lower respiratory system| 40. | What is line A pointing to? | A)| Hyoid bone| B)| Trachea| C)| Adams Apple| D)| Thyroid| E)| Epiglottis| Ans:| E| Use the following to answer questions 41-45: | Reference: Ref 22-3Link to: 22. 2 Inhaled air travels in the lower respiratory system| 41. | What line is pointing to the left terminal bronchiole? | A)| G| B)| N| C)| H| D)| A| E)| None of the above|

Ans:| B| | Reference: Ref 22-3Link to: 22. 2 Inhaled air travels in the lower respiratory system| 42. | What is line J pointing to? | A)| Right secondary bronchus| B)| Left secondary bronchus| C)| Right primary bronchus| D)| Left primary bronchus| E)| Carina| Ans:| D| | Reference: Ref 22-3Link to: 22. 2 Inhaled air travels in the lower respiratory system| 43. | Where is the right bronchiole? | A)| F| B)| G| C)| H| D)| L| E)| M| Ans:| B| | Reference: Ref 22-3Link to: 22. 2 Inhaled air travels in the lower respiratory system| 44. | What lines are pointing to tertiary bronchi? | A)| E and K| B)| D and J| C)| F and L| D)| H and M| E)| A and B|

Ans: | C| | Reference: Ref 22-3Link to: 22. 2 Inhaled air travels in the lower respiratory system | 45. | What is line B pointing to? | A) | Carina | B) | Visceral pleura | C) | Parietal pleura | D) | Pleural cavity | E) | Diaphragm | Ans: | C | Use the following to answer questions 46-48: | Reference: Ref 22-4Link to: 22. 2 | Inhaled air travels in the lower respiratory system | 46. | Identify the alveolar sac. | A) | A | B) | B | C) | C | D) | D | E | Ans: | D | Reference: Ref 22-4Link to: 22. 2 | Inhaled air travels in the lower respiratory system | 47. | What is line C | pointing to? | A) | Terminal bronchiole | B) | Respiratory bronchiole | C) | Alveolar ducts |

- D)| Alveolar sac| E)| Alveoli| Ans:| C| | Reference: Ref 22-4Link to: 22. 2 Inhaled air travels in the lower respiratory system| 48. | Where is the terminal bronchiole? | A)| A| B)| B| C)| C| D)| D| E)| E| Ans:| A| Use the following to answer questions 49-51: | Reference: Ref 22-5Link to: 22. 2 Inhaled air travels in the lower respiratory system| 49. | This provides disease resistance within the lungs. | A)| A| B)| B| C)| C| D)| D| E)| None of the above| Ans:| D| | Reference: Ref 22-5Link to: 22. 2 Inhaled air travels in the lower respiratory system| 50. | Which cells are the main sites of gas exchange? | A)| A| B)| B| C)| C| D)| D|
- E)| All of the above| Ans:| C| | Reference: Ref 22-5Link to: 22. 2 Inhaled air travels in the lower respiratory system| 51. | Which cell secretes surfactant? | A)| A| B)| B| C)| C| D)| D| E)| None of the above| Ans:| A| | Link to: 22. 8 The basic rhythm of respiration| 52. | The basic rhythm of respiration is controlled by the| A)| pons. | B)| medulla oblongata. | C)| hypothalamus. | D)| pneumotaxic area. | E)| apneustic area. | Ans:| B| | Link to: 22. 6 Respiration occurs between alveoli| 53. | The exchange of gases between blood in the systemic capillaries and tissue cells is called| A)| pulmonary ventilation. | B)| internal respiration. |
- C)| external respiration. | D)| expiration. | E)| inspiration. | Ans:| B| | Link to: 22. 3 Inhalation and exhalation| 54. | For air to enter the lungs during inhalation| A)| the pressure inside the lungs must become lower than the atmospheric pressure. | B)| the pressure inside the lungs must be higher than the atmospheric pressure. | C)| the pressure inside the lungs must be equal to the atmospheric pressure. | D)| the size of the lungs must be decreased. | E)| the diaphragm has to be relaxed. | Ans:| A| | Link to: 22. 6 https://assignbuster.com/human-ap-ch-22-respiratory-system/

Respiration occurs between alveoli 55. Which of the following affect(s) the release of oxygen from hemoglobin? A)| partial pressure of oxygen| B)| temperature | C) | acidity | D) | carbon dioxide in the tissue | E) | all of the above. | Ans:| E| | Link to: 22. 7 Oxygen is primarily transported | 56. | Carbon monoxide: A) binds weakly to amino acids within hemoglobin B) binds to the heme group of hemoglobin| C)| binds more strongly to the heme than oxygen does | D)| binds weakly to amino acids within hemoglobin and binds to the heme group of hemoglobin| E)| binds to the heme group of hemoglobin and binds more strongly to the heme than oxygen does Ans: | E| | Link to: 22. 3 Inhalation and exhalation | 57. Name and briefly describe the three basic processes of respiration. | Ans: | 1. Pulmonary ventilation is the movement of air in and out of the lungs due to contraction and relaxation of muscles that control the size of the thoracic cavity. 2. External respiration is the exchange of gases between the air in the alveoli and the blood in the pulmonary capillaries. 3. Internal respiration is the exchange of gases between the blood in the systemic capillaries and tissues. | | Link to: 22. 3 Inhalation and exhalation 58. Describe the inward forces of elastic recoil, and explain why the lungs do not normally collapse during expiration. Ans: Elastic recoil is the recoil of elastic fibers stretched during inspiration and the pull of the surface tension of alveolar fluid. Intrapleural pressure is always subatmospheric during normal breathing, which tends to pull lungs outward and to keep alveolar pressure from equalizing with atmospheric pressure. Surfactant in alveolar fluid decreases surface tension to help prevent collapse. | | Link to: 22. 3 Inhalation and exhalation Inhalation and exhalation, 22. 5: Oxygen and carbon and 22. 6: Respiration 59. | In chronic

emphysema, some alveoli merge together and some are replaced with fibrous connective tissue.

In addition, the bronchioles are often inflamed, and expiratory volume is reduced. Using proper respiratory system terminology, explain at least four reasons why affected individuals will have problems with ventilation and external respiration. | Ans:| Answers could include: reduced compliance (reduces ability to increase thoracic volume); increased airway resistance (decreases tidal volume); decreased diffusion due to increased diffusion distance, decreased surface area, and changes in partial pressures of gases (altering gradients). Other answers may be acceptable. |