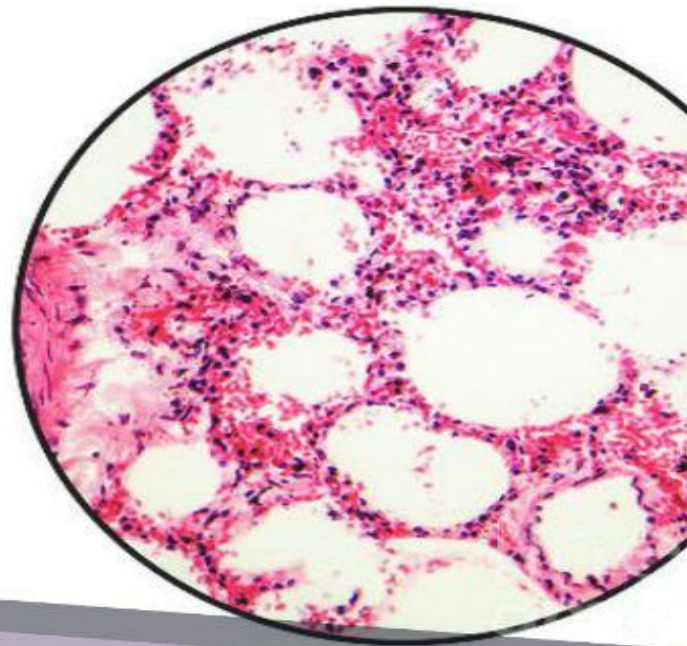
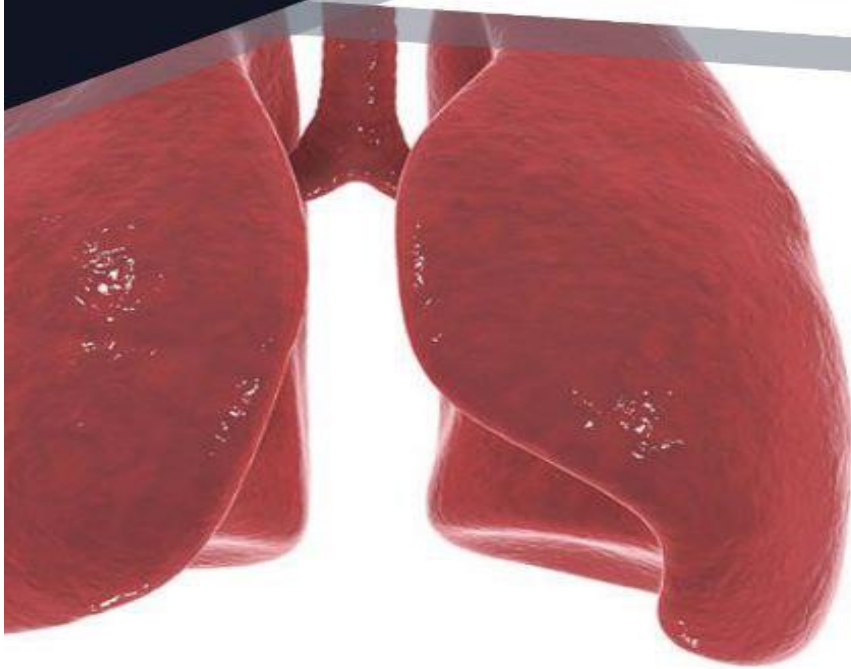


MEDZONE RESPIRATORY

**YEAR
2024/2025**



HISTOLOGY

Mediated by

MedZone Family



1. Which of the following does not belong to conducting portion of the respiratory system?

- a) Nose
- b) Pharynx
- c) Alveoli
- d) Bronchioles
- e) Bronchi

2. Which of the following is devoid of cartilage?

- a) Trachea
- b) bronchus
- c) larynx
- d) bronchiole
- e) none of the above

3. Nasal mucosa includes:

- a) pseudostratified ciliated columnar epithelium
- b) lamina propria
- c) seromucous glands
- d) venous plexuses
- e) all of the above

4. Which of the following is mismatched?

- a) trachea-- C-shaped cartilage rings
- b) trachea--respiratory epithelium
- c) bronchi--hyaline cartilage as irregular plates
- d) bronchioles--lacks hyaline cartilage
- e) bronchi--simple columnar epithelium with Clara cells

5. C-shaped rings that form the framework of the trachea and help keep it open are composed of:

- a) fibro-elastic tissue
- b) trachealis muscle
- c) skeletal muscle
- d) hyaline cartilage
- e) bone

6. Alveolar type I cells are:

- a) cuboidal cells that secrete surfactant
- b) squamous cells involved in gas exchange
- c) ciliated cells that move mucous
- d) columnar cells that secrete mucous
- e) amoeboid, phagocytic cells that clean the alveolar surface

7. Alveolar dust cells (macrophages) are:

- a) cuboidal cells that secrete surfactant
- b) squamous cells involved in gas exchange
- c) ciliated cells that move mucous
- d) columnar cells that secrete mucous
- e) amoeboid that clean the alveolar surface

8. Simple squamous epithelium lines the:

- a) nasal cavities
- b) crypts of pharyngeal tonsils
- c) bronchi
- d) trachea
- e) Alveoli

9. The large numbers of alveolar macrophages which migrate into lumens alveoli are derived from:

- a) Fibroblasts in the interalveolar septa
- b) Dendritic cells of lymphoid tissue
- c) Type II alveolar epithelial cells
- d) Monocytes in circulating blood
- e) Smooth muscle cells of pulmonary arteries

10. As respiratory passages branch from trachea to bronchioles, epithelium gradually changes from:

- a) simple squamous ciliated to Pseudostratified columnar
- b) simple columnar to simple squamous
- c) simple cuboidal to simple columnar
- d) stratified squamous to simple squamous
- e) ciliated pseudostratified columnar to simple cuboidal

11. The following statements about the trachea are true except:

- a) It has stratified columnar epithelium
- b) It has pseudostratified columnar epithelium
- c) It has goblet cells
- d) It has mucous glands in the submucosa
- e) It has a cartilage layer formed of hyaline cartilage

12. The dust cells in the lung alveoli:

- a) Are phagocytic
- b) Secrete surfactant
- c) Produce antibodies
- d) Developed from plasma cells

13. Which epithelial cell surface specialized in used to move mucous and particles along the surface?

- a) Cilia
- b) Stereocilia
- c) Microvilli
- d) villi

14. Pseudo stratified columnar ciliated epithelium is found lining the:

- a) Nasal cavities
- b) Bronchi
- c) Trachea
- d) All of the above

15. The cell type in the olfactory epithelium whose nuclei are positioned most apically is the:

- a) Olfactory receptor cell.
- b) Goblet cell
- c) Sustentacular cell
- d) Club cell
- e) Basal cell

16. The most numerous cell type in the olfactory epithelium, whose nuclei are positioned at several levels in the lower portion of the epithelium is the:

- a) Olfactory receptor cell.
- b) Sustenacular cell.
- c) Basal cell.
- d) Goblet cell

17. Olfactory receptor cells:

- a) Have several extremely long cilia for extensive exposure of receptor surface membrand.
- b) Can be replaced by cell division, when worn out or damaged.
- c) Are supported by sustentacular cells
- d) All of the above

18. Nasal mucosa includes:

- a) Pseudostratified ciliated columnar epithelium
- b) Lamina propria
- c) Venus plexuses
- d) All of the above

19. Small sero-mucous glands may be found in the mucosa of the:

- a) Nasal cavity
- b) Trachea
- c) Bronchi

d) All of the above

20. In which of the following goblet cells most frequent?

- a) Trachea
- b) Bronchus
- c) Bronchiole
- d) Alveolus

21. Simple squamous epithelium lines the:

- a) Nasal cavities
- b) Bronchi
- c) Trachea
- d) Alveoli

22. Alveolar type II cells are:

- a) Cuboidal cells that secrete surfactant
- b) Squamous cells involved in gas exchange
- c) Ciliated cells that move mucous
- d) Columnar cells that secrete mucous

23. The entire alveolar wall or septum (separating adjacent alveoli) consists of:

- a) Surface epithelium
- b) Blood vessels
- c) Connective tissue
- d) All of the above

24. Non-ciliated cuboidal cells in bronchiole epithelium that are thought to be involved in absorption or secretion are called:

- a) Club cells
- b) Goblet cells
- c) Basal cells
- d) Type I cells

25. The lining of the pleural cavity is:

- a) Mesothelium
- b) Pseudostratified columnar epithelium
- c) Type I pneumocytes
- d) Type II pneumocytes

26. C-shaped rings that form the framework of the trachea and help keep it open are composed of:

- a) Fibro-elastic tissue
- b) Trachealis muscle
- c) Skeletal muscle
- d) Hyaline cartilage

27. Which of the following is devoid of hyaline cartilage?

- a) Trachea
- b) Bronchus
- c) Larynx
- d) Bronchiole

28. Which cell is also called a (Great alveolar) or (septal) cell?

- a) Clara cell
- b) Type I pneumocyte
- c) Type II pneumocyte
- d) Dust cell

29. What cell types are found in the respiratory mucosa?

- a) Ciliated cells
- b) Goblet cells
- c) Brush cells
- d) All of the above

30. What is the smallest airspace of the respiratory tree?

- a) Alveolar duct
- b) Alveoli
- c) Alveolar sac
- d) Respiratory bronchiole

31. Which structure is part of the conducting portion of the airway?

- a) Bronchi
- b) Alveolar ducts
- c) Alveoli
- d) Respiratory bronchioles

32. What type of epithelium lines the vestibule?

- a) Simple squamous epithelium
- b) Simple columnar epithelium
- c) Stratified squamous epithelium
- d) Ciliated pseudostratified epithelium with goblet cells

33. Which cartilage of the larynx is made of hyaline cartilage?

- a) Thyroid cartilage
- b) Cricoid cartilage
- c) Arytenoid cartilage
- d) All of the above

34. What part of the respiratory tree is the functional unit where gas exchange occurs?

- a) Alveolar duct
- b) Alveoli

- c) Alveolar sac
- d) Respiratory bronchiole

35. Which is structure is NOT part of the conducting portion of the airway?

- a) Bronchi
- b) Larynx
- c) Trachea
- d) Respiratory bronchioles

36. What type of tissue lines the pharynx?

- a) Simple squamous epithelium
- b) Stratified squamous epithelium
- c) Ciliated pseudostratified epithelium with goblet cells
- d) Both b and c

37. What is an olfactory cell?

- a) Unipolar neuron
- b) Bipolar neuron
- c) Multipolar neuron
- d) A Supporting cell

38. Which cell is found in large numbers in the terminal bronchioles?

- a) Clara cell
- b) Type I pneumocyte
- c) Type II pneumocyte
- d) Dust cell

39. What type of tissue lines the paranasal sinuses?

- a) Simple squamous epithelium
- b) Simple columnar epithelium
- c) Stratified squamous epithelium
- d) Ciliated pseudostratified epithelium with goblet cells

40. What are the alveolar pores called?

- a) Pores of Luschka
- b) Pores of Descemet
- c) Pores of Mall
- d) Pores of Kohn

41. The walls of bronchioles lack:

- a) Elastic tissue
- b) Columnar epithelium
- c) Smooth muscle
- d) Hyaline cartilage

42. Both goblet cells and ciliated epithelial cells occur in all of the following EXCEPT

- a) Nasal cavity

- b) Trachea
- c) Bronchi
- d) Alveoli.

43. Pulmonary alveoli characteristically have:

- a) Smooth muscle in their walls to help expel air depleted of oxygen
- b) Ciliated epithelial cells
- c) Surfaces coated with a detergent-like material to facilitate alveolar inflation
- d) Imperforate walls between adjacent alveoli to retard the spread of pathogenic organisms

44. Which cell is also called an alveolar phagocyte?

- a) Dust cell.
- b) Clara cell
- c) Type I pneumocyte
- d) Type II pneumocyte

45. Which cell involved in general sensation of the olfactory mucosa?

- a) Basal cell
- b) Brush cell
- c) Olfactory cell.
- d) Sustentacular cell

46. Air inhaled through the nose is “conditioned” to protect the tissues of the lower airways. For conditioning, the air in nasal tissue has all of the following features EXCEPT:

- a) Secretions supplied from goblet cells in the epithelium
- b) Generation of heat by mitochondria in the basal cells of the respiratory of epithelium
- c) Secretions from sero mucous glands in the subepithelial connective tissues
- d) Venous plexuses at selected places in the subepithelial connective tissues

47. All of the following are characteristics of Type II pneumocytes EXCEPT:

- a. Contain organelles called lamellar bodies
- b. Secrete surfactant
- c. Phagocytosed particles reaching the alveoli
- d. Form tight junctions with Type I pneumocytes

48. A unique feature of the olfactory epithelium is the presence of:

- a) Goblet cells
- b) Neurons that are replaced throughout life
- c) Hair cells
- d) Receptors for taste

49. Lamellar bodies are present in which cell:

- a) Type I pneumocyte

- b) Type II pneumocyte
- c) Clara cell
- d) Macrophage

50. Which of the following portions of the respiratory tract lack smooth muscle?

- a) Trachea
- b) Bronchi
- c) Bronchioles
- d) Alveoli.

51. Cuboidal cells that bulge into the air space They have rounded nuclei with short microvilli, their cytoplasm contains granules called lamellar bodies are called.

- a) Clara cell
- b) Type I pneumocyte
- c) Type II pneumocyte
- d) Dust cell

52. Brush cells of the trachea:

- a) Act as sensory receptor cells
- b) Act as stem cells
- c) Act as neuroendocrine cells
- d) Most numerous

53. Which of the following is responsible for the spongy structure of the lung?

- a) Bronchus.
- b) Terminal bronchiole
- c) Respiratory bronchiole
- d) Alveoli

54. Squamous cells with extremely flat nuclei in the lung alveoli cover approximately:

- a) 65% of the alveolar surface
- b) 95% of the alveolar surface
- c) 85% of the alveolar surface
- d) 75% of the alveolar surface

55. What type of epithelium is found in the respiratory mucosa?

- a) Non-ciliated pseudostratified columnar epithelium with goblet cells
- b) Ciliated pseudostratified columnar epithelium with goblet cells
- c) Simple columnar epithelium
- d) Stratified squamous epithelium

56. Which of the following are not characteristics of Type II pneumocytes?

- a) Contain organelles called lamellar bodies
- b) Secrete surfactant

- c) Phagocytosed particles reaching the alveoli
- d) Form tight junctions with Type I pneumocytes

57. Which structure is part of the conducting portion of the airway?

- a) Bronchi
- b) Alveolar ducts
- c) Alveoli
- d) Alveolar sacs

58. What part of the respiratory tree is the functional unit where gas exchange occurs?

- a) Alveolar duct
- b) Alveoli
- c) Alveolar sac
- d) Respiratory bronchiole

59. What is the first layer of Blood Air Barrier from the alveolar side.

- a) Layer of surfactant
- b) Type I pneumocytes
- c) Fused basal lamina of type I pneumocytes and endothelial cells of blood capillaries
- d) Endothelial cells

60. What cell types found in the respiratory mucosa?

- a) Ciliated cells
- b) Goblet cells
- c) Basal cells
- d) All of the above

61. What type of epithelium lines the trachea?

- a) Simple squamous epithelium
- b) Simple cuboidal epithelium
- c) Pseudostratified epithelium
- d) Simple columnar epithelium

62. What type of tissue makes up the rings of the trachea?

- a) Compact bone
- b) Spongy bone
- c) Hyaline cartilage
- d) Fibrocartilage

63. Which structure is NOT part of the conducting portion of the airway?

- a) Bronchi
- b) Respiratory bronchioles
- c) Larynx

d) Trachea

64. Which cell secretes surfactant?

a) Clara cell

b) Type I pneumocyte

c) Type II pneumocyte

d) Dust cell

65. what is the smallest airspace of the respiratory tree?

a) Alveolar duct

b) Alveoli

c) Alveolar sac

d) Respiratory bronchiole

e) Terminal bronchiole

66. Which cell is found in large numbers in the terminal bronchioles?

a) Clara cell

b) Type I pneumocyte

c) Type I pneumocyte

d) Dust cell

e) Brush cell

67. Which cell type is located at the basal lamina of the olfactory mucosa?

a) Basal cells

b) Brush cells

c) Olfactory cells

d) Sustentacular cells

e) All of the above

**68. All of the following belong to the conducting portion of the respiratory system
Except**

a) Trachea

b) Bronchi

c) Terminal bronchioles

d) Respiratory bronchioles

e) Larynx

**69. All of the following belong to the respiratory portion of the respiratory system
Except:**

a) Respiratory bronchioles

b) Terminal bronchioles

c) Alveolar ducts

d) Alveoli

e) Alveolar sacs

70. The nasal vestibules are lined by:

- a) Ps. Str. Columnar ciliated epithelium
- b) Str. sq. epithelium
- c) Thin skin
- d) Str. col. epithelium
- e) Transitional epithelium

71. Concerning the olfactory mucosa all of the following statements are true except:-

- a) Present at the roof of the nasal cavities and cover upper parts of lateral wall and nasal septum
- b) The epithelium contains supporting, olfactory and basal cells
- c) Olfactory cells have long motile cilia.
- d) No goblet cells are present in The epithelium
- e) Nerve axons project from the olfactory cells to the C.N.S.

72. Regarding the olfactory mucosa, all of the following statements are true except:-

- a) The epithelium is thick pseudo- stratified neuroepithelium
- b) The epithelium consists of four types of cells
- c) The olfactory sensory cells are bipolar nerve cells
- d) No goblet cells or motile cilia are present in the olfactory epithelium
- e) The corium contains Bowman's glands which secrete a serous fluid

73. Regarding the olfactory sensory cells of the olfactory epithelium which one of the following is true:-

- a) Are unipolar neurons.
- b) The dendrites pass to the corium.
- c) Contains yellowish pigment which is responsible for the yellow color of the olfactory area
- d) Have axonal processes confined to the epithelium surface
- e) Are associated with odor specific receptors

74. The yellowish pigment of the olfactory mucosa is present in

- a) Olfactory cells
- b) Supporting cell
- c) Basal cells
- d) Pigment cells in the C.T. lamina propria
- e) Olfactory vesicles

75. The swell bodies are large venous plexuses present in:

- a) The corium of the mucosa of the olfactory area of the nasal fossae
- b) The corium of the mucosa of the respiratory area of the nasal fossae
- c) The corium of the of pharyngeal mucosa
- d) The corium of the laryngeal mucosa

76. Regarding the epiglottis which one of the following statements is Not true:

- a) Has a central epiglottic hyaline cartilage
- b) Has a lingua surface and a laryngeal surface
- c) The lingual surface is covered by str. sq. epithelium
- d) The laryngeal surface is covered by str. sq. epithelium and ps. str. Col. ciliated epithelium
- e) The lamina propria contains mixed mucous and serous glands

77. The epithelium of the true vocal cords is:

- a) Simple sq. epithelium
- b) Str. sq. epithelium
- c) Ps. str. col. ciliated epithelium
- d) Str. col. ciliated epithelium
- e) Simple cubical epithelium

78. The epithelium of the false vocal cords is:

- a) Simple sq. epithelium
- b) str. sq. epithelium
- c) Ps. str. col. ciliated epithelium
- d) Str. col. ciliated epithelium
- e) Simple cubical epithelium

79. All of the following cells are present in the tracheal epithelium Except:

- a) Columnar ciliated cells
- b) Goblet cells
- c) Basal cells
- d) Serous cells
- e) Clara cells

80. In the trachea, the lamina propria is separated from the submucosa by:

- a) A complete layer of smooth muscle fibers
- b) A band of condensed fibro - elastic membrane
- c) A band of elastic fibro cartilage
- d) A C- shaped ring of hyaline cartilage
- e) Irregular plates of hyaline cartilage

81. Regarding the cartilage of the trachea, which one of the following statements is not correct:

- a) Is hyaline cartilage
- b) In the form of c-shaped rings
- c) Present at the outer fibro cartilage coat
- d) The gaps between the free edges are directed anteriorly
- e) The cartilage rings are connected together by fibro-elastic membrane

82. Regarding the cartilage of the trachea, which one of the following statements is not correct:

- a) Is elastic fibro-cartilage.
- b) In the form of c- shaped rings
- c) The gaps between the free edges are directed posteriorly.
- d) Present at the outer fibro - cartilage coat.
- e) The cartilage r rings are connected together by fibro-elastic membrane attached to the perichondrium

83. The intra-pulmonary bronchus is characterized by all of the following except one:

- a) Highly folded mucosa
- b) The epithelium is simple columnar ciliated with goblet cells
- c) The corium is C.T rich in elastic fibers
- d) Muscle layer is spirally arranged around the mucosa
- e) The adventitia contains plates of hyaline cartilage, glands, lymphatic nodules and lymphocytes

84. The intra-pulmonary bronchus is characterized by (one answer is correct):

- a) Wider than s trachea and flattened posteriorly.
- b) The mucosa is flattened all around
- c) Complete muscle layer surround the mucosa.
- d) The goblet cells are more numerous than that in the tracheal epithelium
- e) Mucous and serous glands are present in the submucosa

85. Concerning the intrapulmonary bronchus , all of the following statements are correct Except:

- a) It is narrower than trachea.
- b) The mucosa is heavily folded all around.
- c) The epithelium contains much numerous goblet cells than that of tracheal epithelium
- d) No elastic membrane present
- e) No submucosa

86. The intra-pulmonary bronchus is characterized by all the following except:

- a) Narrower than trachea
- b) Circular circumference
- c) The mucosa is heavily folded all around
- d) Goblet cells are fewer than that of tracheal epithelium
- e) Elastic membrane separates the corium from the submucosa

87. The intra-pulmonary bronchus is characterized by all the following except:

- a) Narrower than trachea
- b) Circular circumference
- c) The mucosa is heavily folded all around

d) The submucosa contains irregular plates of cartilage, mucous glands and lymphatic nodules

e) Complete muscle layer surround the mucosa

88. Regarding the bronchioles , all of the following are correct (Except one):

a) The diameter is Less than 1 mm

b) The epithelium consists of ciliated cells and Clara cells

c) 'The Clara cells secrete serous secretion

d) The muscle layer is well developed

e) Irregular cartilage plates, muco- serous glands and lymphatic nodules are present at the adventitia

89. Concerning the bronchioles, all of the following are correct Except one:

a) The diameter is less than 1 mm

b) The epithelium consists of ciliated cells and numerous goblet cells

c) The muscle layer is well developed

d) No cartilage is present in the wall

e) No glands, nor lymphatic nodules are present in the wall

90. The bronchioles are characterized by all of the following except:

a) The diameter is less than 1 mm

b) The epithelium consists of ciliated cells and Clara cells

c) The Clara cells secrete mucous secretion

d) The muscle layer is well developed

e) No glands or lymphatic nodules are present in the wall

91. All the following are characters of the bronchioles except:

a) The diameter is less than 1 mm

b) he epithelium consists of ciliated cells and clara cells

c) The muscle layer is poorly developed

d) No cartilage is present in the wall

e) No glands or lymphatic nodules are present in the wall

100. Regarding the bronchioles (one answer is correct):

a) The diameter is more than 2mm

b) Absence of goblet cells and abundance of Clara cells

c) Poorly developed muscle layer

d) Thick corium poor in elastic fibers

e) Glands and cartilage plates are present at the outer connectives tissue layer

101. All the following are characters of the terminal bronchiole Except

- a) Is the smallest and terminal part of the conducting portion of the respiratory system
- b) Lined by ciliated cells and goblet cells
- c) Has well developed muscular coat
- d) No cartilage is present in the wall
- e) No glands or lymphatic nodules are present in the wall

102. Concerning the terminal bronchioles which one of the following Not correct:

- a) Is the smallest and terminal part of the respiratory portion of the respiratory system
- b) Lined with ciliated cells and Clara cells
- c) Has well developed muscular coat
- d) No cartilage is present in the wall
- e) No glands or lymphatic nodules are present in the wall

103. Regarding the terminal bronchiole, all of the following are correct except

- a) Is the smallest and terminal part of the conducting portion of the respiratory system
- b) Interrupted by alveoli
- c) Lined with ciliated cells and Clara cells
- d) as well developed muscular coat,
- e) No glands, or cartilage and no lymphatic nodules are present in the wall

104. Concerning the respiratory bronchioles, all the following statements are correct except:

- a) Arise from the bifurcation of the terminal bronchiole
- b) Lined with cubical ciliated and non ciliated epithelium and Clara cells
- c) Divide to form alveolar ducts
- d) Involved in gaseous exchange
- e) Have no cartilage

105. Concerning alveolar ducts all the following statements are correct Except:

- a) Long branching passages arise from respiratory bronchioles
- b) The wall is interrupted by alveoli
- c) Lined by ps. str. Col. ciliated epithelium.
- d) Surrounded by C.T. & elastic fibers and smooth muscle fibers
- e) Have no cartilage

106. concerning the alveolar epithelium, each of the following statements are correct Except:

- a) The epithelium rest on a very thick basement membrane
- b) Type I pneumocyte constitute the majority (95%)
- c) Type II pneumocytes constitutes the minority (5%)
- d) For gas exchange and secretion of pulmonary surfactant.
- e) Type I pneumocytes are Joined to neighboring type II by tight junctions.

107. Regarding type I pneumocyte, all of the following statements are correct Except:

- a) Constitute the majority of the alveolar lining cells
- b) Flat squamous cells
- c) Can divide and give type I pneumocytes
- d) For gaseous exchange.
- e) Joined to neighboring pneumocytes by tight junction

108. Regarding type I pneumocyte, all of the following statements are true Except:

- a) Constitute the majority of the alveolar lining cells. Flat squamous cells
- b) Can not divide
- c) For gaseous exchange
- d) Joined to neighboring pneumocytes by gap junction

109. Which one of the following statements describe type I pneumocytes:

- a) They are precursors of type II pneumocytes
- b) They have loose intercellular junction
- c) They represent 5% of the alveolar lining cells
- d) They provide an extremely thin gas permeable barrier
- e) They are involved in production of surfactant

110. All the following describe type II pneumocytes Except:

- a) Represent 5% of the alveolar lining cells
- b) Have the capacity to divide into type I and type II pneumocytes
- c) Secretes surfactant which increase the surface tension
- d) Secrets surfactant which decrease the surface tension
- e) Joined to neighboring pneumocytes by tight junction

111. Each of the following is part of the minimal blood air barrier except:

- a) Basal laminae
- b) Alveolar epithelium
- c) Endothelial lining

d) A network of reticular fibers and elastic fibers

112. Regarding the alveolar macrophages all of the following is correct except:

- a) Are monocyte in origin**
- b) Present in the inter-alveolar septum and the lumen of the alveoli**
- c) Represent the least number of other cell types of the lung**
- d) Includes dust cells and heart failure cells**
- e) Phagocytose dust coal particles and extravasated RBCs**

113. All of the following are parts of the conducting portion of the respiratory system except.....

- a) Bronchi**
- b) Trachea**
- c) Alveoli**
- d) Nasal cavity**

114. The rigid wall of the conducting system is due to presence of

- a) Collagen and elastic fibers**
- b) Bone and muscles**
- c) Cartilage**
- d) All of the above**

115. Respiratory epithelium is

- a) Non keratinized st. sq. epithelium**
- b) Pseudostratified ciliated columnar epithelium**
- c) Keratinized stratified sq. epithelium**
- d) Non of the above**

116. A mass of lymphoid tissue at the posterior wall of the naso pharynx

- a) Palatine tonsil**
- b) Pharyngeal tonsil**
- c) Paranasal sinuses**
- d) Non of the above**

117. All of the following is covered by respiratory epithelium Exept:

- a) Ant. Surface of epiglottis**
- b) Vocal cords**
- c) Post. Surface of epiglottis**
- d) A&c**

118. Have an expanded apical region packed with mucinogen granules

- a) Brush cells
- b) Basal cells
- c) Goblet cells
- d) Non of the above

119. A loose CT rich in elastic filers and contains lymphoid nodules

- a) Adventitia of the trachea
- b) Mucosa of the trachea
- c) Lamina propria
- d) Submucosa

120. Concerning bronchioles

- a) Have ciliated columnar epithelium with no goblet cells
- b) No cartilage, no glands & no lymphatic nodules
- c) All of the above

121. secrete fluid layer helps to keep the bronchioles patent during expiration

- a) Goblet cells
- b) Basal cells
- c) Clara cells
- d) Granule cells

122. The respiratory bronchioles are covered by

- a) Columnar ciliated epithelium
- b) Cuboidal ciliated epithelium
- c) St. squamous epithelium
- d) Non of the above

123. All of the following is true concerning the alveolar duct except

- a) Lined by cuboidal ciliated epithelium
- b) Arise from the respiratory bronchioles
- c) Ends by the alveoli
- d) Surrounded by smooth muscle fibers

124. All of the following belong the conducting portion EXCEPT the

- a) trachea

- b) bronchi
- c) bronchioles
- d) alveoli
- e) larynx

125. In the olfactory epithelium, the olfactory receptor cells

- a) are unipolar neurons
- b) send dendritic processes to the olfactory bulb
- c) cytoplasm contains few mitochondria
- d) cytoplasm contains numerous rER
- e) have axonal processes that are confined to the epithelial layer

126. Which of the following statements is true of Clara cells?

- a) they are found in the alveoli
- b) they are the ciliated cells of the bronchiole
- c) they are the endocrine cells that form neuroepithelial bodies
- d) they produce surfactant
- e) they are involved in gas exchange

127. Which of the following statements describes type I pneumocytes

- a) they are the precursors of the type II pneumocytes
- b) they are the predominant cell in the interalveolar septum (wall)
- c) they have loose intercellular junctions
- d) they produce a surfactant
- e) they provide an extremely thin gas-permeable barrier

128. The alveolar pores of Kohn

- a) serve to drain surfactant
- b) serve to equalize the interalveolar pressure
- c) are openings in the pulmonary capillary endothelium
- d) are openings in the bronchiolar walls
- e) are caused by bacterial infection

129. All the following are part of the blood-air barrier EXCEPT

- a) zona diffusa
- b) pulmonary surfactant on alveolar cells
- c) endothelium of fenestrated capillaries
- d) cytoplasm of capillary endothelium
- e) cytoplasm of pneumocyte type I

130. Which of the following statements is true for clara cells

- a) They are found in the wall of alveoli
- b) they are ciliated cells of the bronchiole
- c) They are the endocrine cells that form the neuroepithelial bodies
- d) They produce the surfactant
- e) they are involved in, gas exchange

131. Which of the following statements describe type I Pneumocytes:

- a) They are the Precursors of type II Pneumocytes
- b) They are the predominant cells in the inter alveolar septum (Wall)
- c) They have loose inter cellular junctions
- d) They produce surfactant
- e) They provide extremely thin gas permeable barrier

132. The alveolar pores of kohn:

- a) Serve to drain surfactant
- b) Serve to equalize the inter alveolar pressure
- c) Are opening in the pulmonary capillary endothelium
- d) Are openings in the bronchial walls
- e) Are caused by bacterial infection.

133. Lamellar bodies are characteristic of which of the following cells

- a) Pneumocyte type I
- b) Pneumocyte type II
- c) Alveolar macrophages
- d) Clara Cells
- e) Alveolar endothelium

134. Which of the following doesn't belong to conducting portion of the respiratory system?

- a) Nose
- b) Alveoli
- c) Pharynx
- d) Bronchioles

135. Nasal mucosa includes:

- a) pseudostratified ciliated columnar epithelium
- b) lamina propria
- c) submucous glands

- d) venus plexuses
- e) All of the above

136. The structure which closes of larynx is

- a) Epiglottis
- b) Vocal cords
- c) Adam's apple
- d) Glottis
- e) Uvula

137. Which of the following is devoid of cartilage?

- a) trachea
- b) bronchus
- c) larynx
- d) bronchiole
- e) none of the above

138. Which of the following is a function characteristically associated with "respiratory epithelium"?

- a) taping of particles from passing air for elimination by swallowing
- b) Transmission of oxygen from air into subepithelial capillaries
- c) Use of ciliated epithelial cells to sense odors n passing air
- d) Protection of the luminal surface o vocal folds
- e) Secretion of surfactant

139. Alveolar type II cells are:

- a) cuboidal cells that secrete surfactant
- b) squamous cells involved m gas exchange
- c) ciliated cells t that move mucous
- d) columnar cells that secrete mucous
- e) amoeboid, phagocyte cells that clean the alveolar surface

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141. In which of the following are goblet cells most frequent?

- a) trachea
- b) bronchus
- c) bronchiole
- d) alveolus
- e) Equal in all of the above

142. There are 5 types of cells in the epithelium of The Respiratory Area the are :

- a) Columnar ciliated cells, Brush cells covered by microvilli, Basal stem cells, Goblet cells, and Neuroendocrine cells which secrete serotonin substance
- b) Columnar ciliated cells, Brush cells covered by microvilli, Basal cells, stem cell, and Neuroendocrine cells which secrete serotonin substance
- c) Columnar ciliated cells, Brush cells covered by Basal cells, stem cell, and Neuroendocrine cells which secrete serotonin substance
- d) Not one of them

143. Regarding to the nose has mucous membrane of the respiratory area is thick and yellow in color :

- a) Due to presence of pigments in its covering epithelium
- b) Due to presence of pigments in its covering endothilum
- c) Due to presence of pigments in its covering mesothilum
- d) The sentence is wrong.

144. Regarding to The Olfactory Bipolar Nerve Cells:

- a) The axons of these cells pass into the C.T. under the endothilum to form the olfactory nerve
- b) These vesicles are rich in rough endoplasmic reticulum. microtubules. mitochondria and contain the basal bodies of the cilia.
- c) The dendrites of these cells extend towards the base where they form the olfactory hair vesicles.
- d) No one of them

145. Regarding to The olfactory cilia:

- a) They are non-motile, they lie parallel to the base of the mucosa
- b) These cilia cover the microvilli of the supporting cells
- c) They are motile, they lie parallel to the surface of the mucosa
- d) None of them

146. Regarding to The alveoli:

- a) They are the structural and functional units of respiratory gas exchange
- b) they are small air spaces in the lung which are not in contact with blood capillaries
- c) Lung alveoli open indirectly into the alveolar sacs, or into the alveolar ducts or into the respiratory bronchioles
- d) No one of them

147. Regarding to Type I Pneumocytes:

- a) They are very poor in rough endoplasmic reticulum
- b) They have short microvilli at their alveolar surfaces
- c) They are connected together by tight junctions to prevent leakage of fluid into the alveolar air spaces
- d) All of them are true

148. Regarding to Extra-pulmonary bronchus:

- a) Epithelium is pseudo-stratified columnar ciliated with many goblet cells
- b) It has no submucosa
- c) Elastic fibres are distributed between cartilage plates and in the adventitia
- d) It has a narrow lumen.

149. The following is characterize of Bronchus the are except:

- a) It is long, wide and its lumen is usually patent (not collapsed)
- b) Presence of few neuro-epithelial cells (Chemo-Receptors)
- c) Its mucosa is highly folded and is lined with ciliated or non-ciliated columnar cells, Clara cells and receptor cells
- d) Presence of mucous glands

150. Regarding to The alveolar ducts:

- a) these are the free terminations of the respiratory bronchioles
- b) Outside the epithelium, there is a layer of C.T. containing some elastic and skeletal muscle fibres
- c) Alveolar sacs and alveoli open into the wall of these alveolar ducts
- d) All of them are true

151. Regarding to the Trachea:

- a) It is formed of a tube about 10 cm long
- b) It is kept patent all the time, due to the presence of about 20 C-shaped or incomplete rings of collagen cartilage in its wall.

- c) The wall of the trachea is formed of four layers
- d) All of them are true

152. The fetal lung is characterized by:

- a) Its lobes and lobules are not well-demarcated due to presence of thick C.T. septa
- b) The foetal lung is similar to a gland formed of acini and ducts
- c) Its alveoli are collapsed and are lined by simple columnar epithelium
- d) (1-3)
- e) (2-3)

153. Which one of the below is NOT regarding to Type II Pneumocytes (Secretory Cells)?

- a) They are rounded cells with vacuolated cytoplasm
- b) they have microvilli on their cell membranes
- c) They are rich in mitochondria, ribosomes, rough endoplasmic reticulum and Golgi bodies which secrete phospholipid substance called surfactant
- d) They are connected together by tight junctions to prevent leakage of fluid into the alveolar air spaces
- e) (1-4)

154. The larynx is lined with pseudo-stratified columnar ciliated epithelium with goblet cells except the vocal cords and the anterior surface of the epiglottis which are covered with stratified squamous epithelium. The sentence is?

- a) Correct
- b) False

155. Bronchi

- a) Have plates of hyaline cartilage in their wall
- b) Lack goblet cells
- c) Lack cilia
- d) Lack smooth
- e) Contain alveoli as part of their wall

156. Surfactant

- a) Is produced by type I pneumocyte
- b) Decrease the surface tension at the epithelial-air interface
- c) Is produced by alveolar macrophages
- d) Is a component of the basement membrane of the alveolar epithelium

157. Hyaline cartilage provide structural support for all of the following components of the respiratory system EXCEPT

- a) Larynx
- b) Trachea
- c) Bronchi
- d) Bronchioles

158. The primary function of elastic fibers In the conducting and respiratory portion of the respiratory system Is

- a) Prevent distension of the organ
- b) Provide flexibility of the organ
- c) Support the lymphoid tissues found in many of the organs
- d) All of the above choices

159. The olfactory cells are the following EXCEPT

- a) Basal cells
- b) Sustentacular cell
- c) Bipolar nerve cells
- d) Goblet cells

160. Bowman's gland is present In the lamina propria of

- a) Larynx
- b) Trachea
- c) Bronchi
- d) Bronchioles
- e) Olfactory mucosa

161. The larynx contains all of the following EXCEPT

- a) Fibrocartilage
- b) Elastic cartilage
- c) Hyaline cartilage
- d) Skeletal muscle
- e) Seromucous glands

162. The alveoli are present in all of the following parts of the respiratory tract EXCEPT

- a) Terminal bronchioles
- b) Respiratory bronchioles
- c) Alveolar duct
- d) Alveolar sacs

163. The olfactory cilia (hair) is characterized by the following EXCEPT

- a) Shown motile cilia
- b) Long non-motile cilia
- c) Its proximal part contains 9+2 doublets microtubules
- d) Act as receptors for odor

164. Which one of the following statements concerning terminal bronchioles is true

- a) Their function is gas exchange
- b) They have cartilage plates present in their walls
- c) They do not contain ciliated cells
- d) They are part of the conducting portion of the respiratory system

165. The trachea possesses which one of the following components?

- a) Irregular cartilage plates in its wall
- b) Skeletal muscles in its wall
- c) A thick basement membrane underlying its epithelium
- d) Lined by stratified columnar ciliated epithelium

166. Alveolar macrophages are

- a) Also called dust cells
- b) Often found in the alveolar wall
- c) Often found in the interior of alveoli
- d) Also called heart failure cells
- e) All of the above

167. Type II pneumocyte

- a) Are squamous
- b) Have microvilli
- c) Line terminal bronchioles
- d) Produce surfactant

168. Cells of the alveolar septum include all of the following EXCEPT

- a) Fibroblast
- b) Epithelial cells
- c) Endothelial cells
- d) Fat cells
- e) Mast cells

169. Which cell is normally found only in bronchioles?

- a) Ciliated cells
- b) Clara cells
- c) Pneumocyt II cells
- d) Macrophages

170. The respiratory epithelium of the trachea consisting of the following cells EXCEPT

- a) Ciliated cells
- b) Goblet cells
- c) Basal cells
- d) Clara cells
- e) Small granule cells

171. Terminal bronchioles have which one of the following components?

- a) Scromucous glands in their submucosa
- b) An epithelium containing goblet cells
- c) Clara cells within their lining epithelium
- d) Spiraling smooth muscle bundles separating the lamina propria from the submucoa

172. Which of the following statements concerning respiratory bronchioles Is true?

- a) No gas exchange occur in them
- b) They do not have alveoli forming part of their wall
- c) They contain goblet cells in their lining epithelium
- d) None of the above

173. Which one of the following is NOT part of the blood-gas barrier:

- a) Cytoplasm of type II pneumocyte
- b) Cytoplasm of type I pneumocyte
- c) Basal lamina of type I pneumocyte
- d) Basal lamina of an endothelial cells
- e) Endothelium of a continuous capillaries

174. All of the following are characteristics of Clara cells EXCEPT

- a) They line the bronchi
- b) They can divide
- c) They secrete surfactant-like material
- d) They can metabolize air-born toxins

175. Type II alveolar cells

- a) Are also called dust cells
- b) Are derived from monocytes
- c) Are involved in the exchange of gases surfactant
- d) Secrete Pulmonary surfactant

176. Pulmonary surfactant

- a) Secreted by type II pneumocyte
- b) Secreted by type I pneumocyte
- c) Secreted by alveolar macrophage
- d) Secreted by DNEs (diffuse neuroendocrine system cells)

177. With E/M, which one of the following cells contain lamellar bodies in their cytoplasm

- a) Clara cells
- b) Pneumocyte I
- c) Pneumocyte II
- d) Alveolar macrophage

178. All of the following show a decrease in amount from trachea to alveoli EXCEPT

- a) Cilia
- b) Elastic fibers
- c) Goblet cells
- d) Smooth muscle

179. Portion of the respiratory tract lined by P.St.C.C epithelium include all of the following EXCEPT

- a) Trachea
- b) Bronchiole
- c) Bronchi
- d) Nasopharynx

180. Neuroepithelial bodies are located in

- a) Trachea
- b) Bronchi
- c) Bronchioles
- d) Alveolar sacs

181. The olfactory mucosa differs from respiratory mucosa in having:

- a) True cilia
- b) Goblet cells
- c) Pigmented mucosa
- d) Thinner lining epithelium

182. Smokers suffer from disturbed ratio between:

- a) Small granule cells & ciliated columnar cells
- b) Goblet cells & brush cells
- c) Ciliated cells & goblet cells
- d) Goblet cells & small granule cells

183. In smokers, the most abundant cells in the respiratory epithelium are:

- a) Ciliated columnar cells
- b) Mucous goblet cells
- c) Basal cells
- d) Brush cells

184. Concerning small granule cells, it:

- a) Has electron-lucent granules
- b) Is stem cell that replace other cells
- c) Has basal afferent nerve endings
- d) May control the caliber of airways

185. The ideal way to treat bronchial asthma is:

- a) Decrease secretion of mucoserous glands
- b) Stimulate ciliary beating activity
- c) Relax the smooth muscles of the bronchioles
- d) Increase the diameter of the bronchi

186. Concerning the upper pair of vocal cords, they:

- a) Are the true vocal cords
- b) Contain elastic ligaments
- c) Are covered with non-keratinized stratified squamous epithelium
- d) Protect the larynx from entrance of foreign particles

187. Neuroendocrine cells lining the respiratory epithelium:

- a) Act as sensory receptors
- b) Have basal afferent nerve endings

- c) Regulate glandular secretion
- d) Act as stem cells for other cells.

188. The structural component which is only found in the bronchiole:

- a) Goblet cells
- b) Smooth muscle
- c) Cilia
- d) Clara cells

189. Elastic cartilage provides structural support for the respiratory airway:

- a) Trachea
- b) Bronchi
- c) Bronchioles
- d) Larynx

190. The larynx contains:

- a) Rings of hyaline cartilage
- b) Plates of hyaline cartilage
- c) One pair of vocal cords
- d) Elastic cartilage

191. The first part of the respiratory tract contains non-ciliated cells is:

- a) Terminal bronchiole
- b) Respiratory bronchiole
- c) Trachea
- d) Alveolar duct

192. The part of airway which is located at the transition between conducting and respiratory portions is:

- a) Secondary bronchi
- b) Respiratory bronchioles
- c) Terminal bronchioles
- d) Primary bronchi

193. What type of tissue forms the alveoli in the lung?

- a) Simple squamous epithelium
- b) Simple cuboidal epithelium
- c) Simple columnar epithelium
- d) Pseudostratified epithelium

194. Gas exchange occurs in:

- a) Terminal bronchioles
- b) intra-pulmonary bronchi
- c) Alveolar sac
- d) extra-pulmonary bronchi

195. The first portion of the respiratory tree where gas exchange can occur:

- a) Alveolar duct
- b) Alveolar sac
- c) Respiratory bronchiole
- d) Terminal bronchiole

196. Respiratory distress syndrome is caused by deficiency of:

- a) Goblet cells
- b) Pulmonary surfactant
- c) Elastic fibers
- d) Sero-mucous glands

197. The glandular epithelium of the trachea exists in:

- a) Mucosa
- b) Connective tissue Corium
- c) Submucosa
- d) Adventitia.

198. Pulmonary surfactant:

- a) produced by type II pneumocytes
- b) produced by alveolar macrophages
- c) Increases surface tension of alveolar epithelium
- d) Is produced by type I pneumocytes

199. Bowman's glands are present in the lamina propria of:

- a) Larynx
- b) Trachea
- c) Olfactory mucosa
- d) Nasal cavity

200. The following cell is considered as stem cell:

- a) Clara cell
- b) pneumocyte

- c) Sustentacular
- d) cells of olfactory mucosa
- e) Alveolar macrophage

201. Regarding Clara cells:

- a) Dome shaped ciliated cells
- b) Present within the epithelium of intrapulmonary bronchi
- c) Act as stem cells for type I pneumocytes
- d) Their cytoplasm contains apical sER& basal rER

202. Which one of the following statements concerning respiratory bronchioles is true?

- a) No gas exchange occurs in their walls
- b) Their walls contain a thin layer of smooth muscles
- c) They contain goblet cells in their lining epithelium.
- d) They are lined by simple columnar ciliated epithelium

203. In premature babies suffering from difficulty in breathing and kept in incubators, which of the following cells is involved?

- a) Clara cells.
- b) Small granule cells
- c) Squamous alveolar cells
- d) Great alveolar cells

204. A histological feature of the bronchiole is:

- a) It has cartilage plates in its wall
- b) Its lining epithelium contains goblet cells
- c) It has well developed circular smooth muscles
- d) It has mucoserous glands in its wall

205. Alveolar sacs are characterized by the following:

- a) Are expanded irregular spaces at distal ends of terminal bronchiole
- b) Lined by simple cubical epithelium
- c) They have smooth muscles in their walls
- d) Formed of group of alveoli with common central space

206. Inter-alveolar septa are:

- a) Delicate partitions separating alveoli
- b) Having smooth muscle fibers
- c) Supported by collagen fibers

d) Non vascular

207. Olfactory cells are:

- a) Regenerative for all three cell types**
- b) Provided with microvilli submerged in a fluid layer**
- c) Bipolar nerve cells**
- d) rich in yellow pigments**

208. What type of tissues lines the paranasal sinuses:

- a) Simple squamous epithelium**
- b) Simple columnar epithelium**
- c) Stratified squamous epithelium**
- d) Pseudostratified columnar ciliated epithelium with goblet cells**

209. Type I pneumocytes:

- a) Have membrane limited multilamellar bodies**
- b) Provide a thin membrane through which gaseous exchange occurs**
- c) Secrete pulmonary surfactant**
- d) Can divide and act as stem cells**

210. Alveolar phagocytes:

- a) Are rich in rER and mitochondria**
- b) Arise mainly from neutrophils escaping from blood capillaries**
- c) Are macrophages that enter C.T from the blood**
- d) Can be stained with silver**