



# Respiratory System

## Past papers

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- **Histology**
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## **Past Papers (Theory material)**

**Q1)** Regarding Type 1 alveolar cells all of the following is true, except?

- a) Simple squamous attenuated cells
- b) Form 97% of alveolar surface
- c) Contain lamellar bodies
- d) Has desmosomes
- e) Has occluding junctions

**Ans: C**

**Q2)** One of the following statements is incorrect according to terminal bronchiole:

- a) Complete absence of cartilage
- b) Single layer of ciliated and non-ciliated cuboidal epithelium
- c) in terminal bronchioles we can find aggregations of lymph nodes

**Ans: C**

**Q3)** All of the following have pseudostratified columnar epithelial lining, except?

- A) Inner surface of epiglottis
- B) Vestibular fold
- C) terminal bronchiole

**Ans: C**

**Q4)** Cell found in the septum and is called septal cell:

- A. Type 1 pneumocyte
- B. Type 2 pneumocyte
- C. Dust cell

**Ans: B**

**Q5)** We can see only 1 or 2 pieces of cartilage in which of the following:

- A. main bronchi
- B. secondary bronchi
- C. bronchopulmonary segments
- D. large bronchioles
- E. small bronchioles

**Ans: C**

**Q6)** The respiratory membrane composed of all of the following except:

- A) Type 1 Alveolar cells
- B) Endothelial cells
- C) Fused Basal lamina
- D) Surfactant layer
- E) Dust Cell

**Ans: E**

**Q7)** Which of the following is not found in the respiratory membrane?

- A) Surfactant layer
- B) Type I pneumocyte
- C) Type II pneumocyte
- D) Endothelial cell
- E) Fused basal lamina

**Ans: C**

**Q8)** Bronchioles, all the following statements are correct except:

- A) In terminal bronchioles the lymphocytes are aggregated as lymphatic nodules
- B) The connective tissue and smooth muscle in terminal bronchioles are greatly reduced

C) Bronchioles which are less than 1 mm in diameter have neither cartilage nor submucosal glands

D) In the distal part of respiratory bronchioles, the Clara cells are replaced by simple squamous epithelial cells.

**Ans: A**

**Q9)** Dust cells in respiratory system, all the following statements are correct except:

A) They are transported from the bronchioles into the pharynx via the ciliary action of the respiratory epithelium

B) They are the most numerous of all cell types, and eliminated from the lungs at a rate of 50 million per day

C) Often noted in the respiratory membrane

D) They are derived from monocytes, entering the lungs via the blood stream

E) They are found also in the connective tissue around the blood vessels and in the pleura

**Ans: C**

**Q10)** Type II alveolar cells are associated with all of the following EXCEPT:

A) They form 16% of the interalveolar septum

B) They form 8% of the alveolar wall

C) They contain in their cytoplasm lamellar bodies

D) They have the ability to regenerate their own type as well as type I cells

E) They are connected to type I alveolar cells by occluding junctions and desmosomes

**Ans: B**

**Q11)** Which is not present in the blood-air barrier?

A) cytoplasm of endothelial cells

B) cytoplasm of alveolar cells

- C) fused basal lamina
- D) surfactant
- E) thickness of 0.1 - 1.5 millimeters

Ans: E

**Q12)** Cell found in the septum and is called septal cell:

- A) Type 1 pneumocyte.
- B) Type 2 pneumocyte.
- C) Dust cell.
- D) fibroblast.
- E) mast cell.

Ans: B

**Q13)** Functionally the important microscopic anatomy of the lung consists of what is called a respiratory membrane, which consist of?

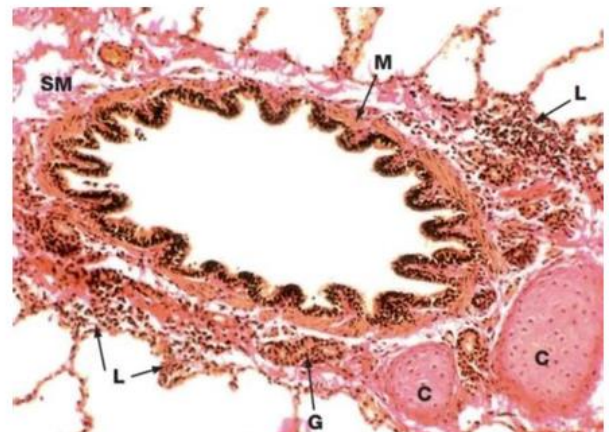
- A) The epithelium of the alveolus
- B) An alveolar basement membrane
- C) A capillary basement membrane
- D) The Endothelium of the capillary
- E) All of the above

Ans: E

### **Past Papers (Lab material)**

**Q1)** Identify the following structure:

- a) Primary bronchus
- b) Secondary bronchus
- c) Tertiary bronchus
- d) Large Terminal bronchiole



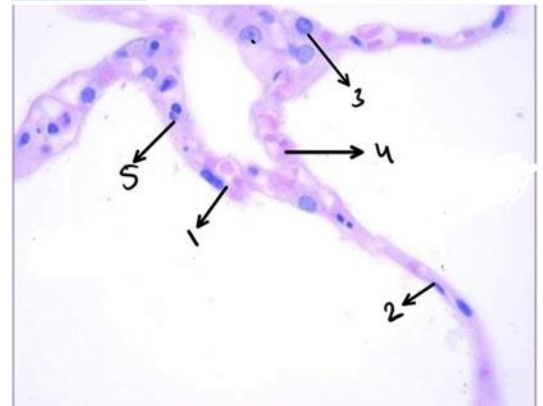
e) Small terminal bronchiole

Ans: E

**Q2)** Which cells produce the surfactant?

- a) 1
- b) 2
- c) 3
- d) 4
- e) 5

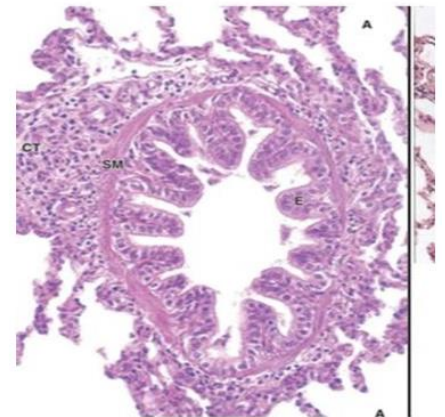
Ans: C



**Q3)** Identify the following structure:

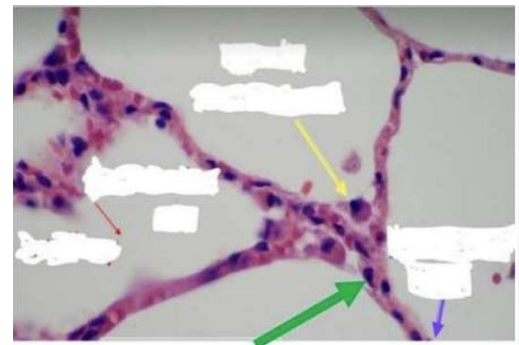
- a) Primary bronchus
- b) Secondary bronchus
- c) Tertiary bronchus
- d) Large Terminal bronchiole
- e) Small terminal bronchiole

Ans: E



**Q4)** The green arrowed cell represents:

- A) Type 1 pneumocytes
- B) Type 2 pneumocytes
- C) Epithelial cells



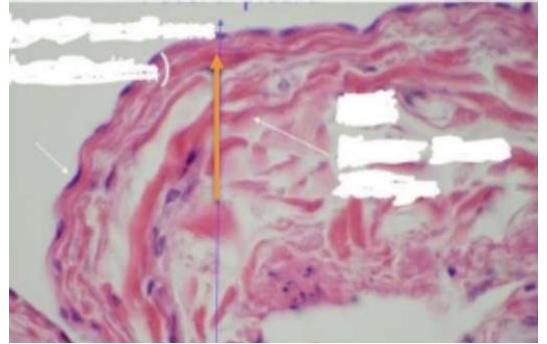
D) None of the above

Ans: A

**Q5)** The orange arrow represents:

- A) Mesothelium
- B) Hyalin cartilage
- C) Elastic Fibers
- D) Endothelium

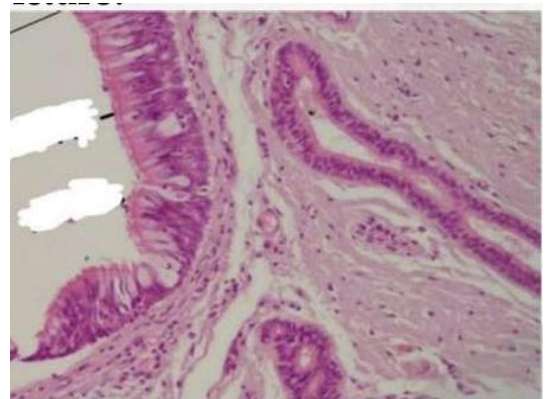
Ans: C



**Q6)** Which of the following doesn't exist in this picture?

- A) Loose connective tissue
- B) pseudostratified columnar epithelium
- C) Goblet cells
- D) Hyaline Cartilage

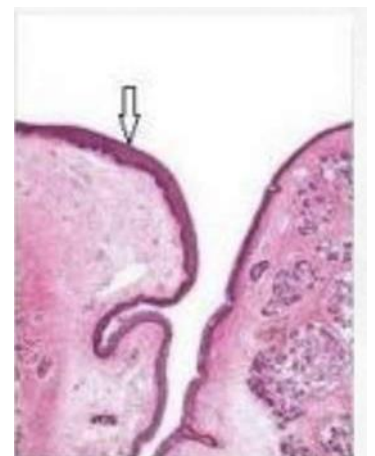
Ans: D



**Q7)** Identify the type of epithelium indicated with the arrow:

- A) pseudostratified ciliated columnar epithelium with goblet cells
- B) pseudostratified ciliated columnar epithelium
- C) simple ciliated columnar epithelium with goblet cells
- D) Stratified squamous epithelium non-keratinized

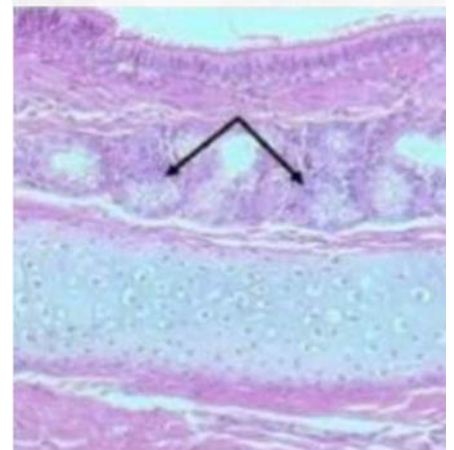
Ans: D



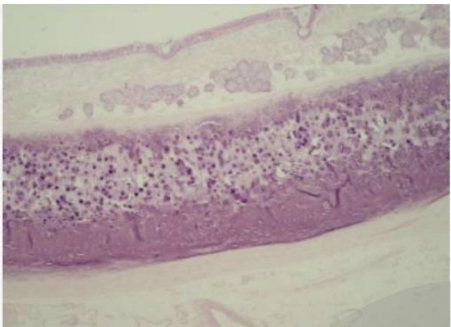
**Q8)** Identify the pointed structure:

- A) Seromucous glands
- B) Interstitial glands
- C) Hyaline Cartilage
- D) Gastric glands
- E) Blood vessels in mucosa

**Ans: A**

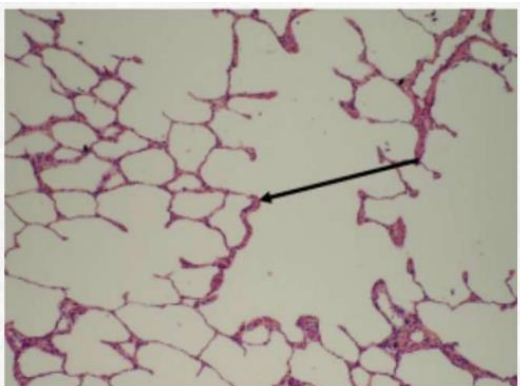


**Q9)** Identify:



**Ans: Trachea**

**Q10)** Identify:



**Ans: Smooth muscle**



**Q11)** The covering epithelium is:

A) Pseudostratified ciliated columnar epithelium

B) Stratified squamous epithelium - keratinized

**Ans: A**

