

RS- Physiology

Archive

Lecture4

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1-Which of the following is correct regarding the ventilation-perfusion (V/Q) ratio in the lungs?

- A) Ventilation is equal to perfusion.
- B) Ventilation is greater than perfusion in the lung apex.

Answer: B

(Explanation: In the apex of the lungs, the V/Q ratio is higher because ventilation exceeds perfusion due to gravity's effect on blood flow.)

2-Which of the following is incorrect regarding the blood-gas barrier?

- A) It is thin to allow efficient gas exchange.
- B) It is thick, hindering gas exchange.
- C) It separates the air in the alveoli from the blood in the capillaries.
- D) It consists of alveolar and capillary walls.

Answer: B

3-Which of the following factors helps keep the alveoli dry?

- A) Positive interstitial fluid (ISF) pressure.
- B) High plasma colloid osmotic pressure.

Answer: B

4-All of the following are edema safety factors except:

- A) High pulmonary capillary hydrostatic pressure
- B) Presence of the surfactant
- C) Negative (ISF)
- D) High osmotic pressure of the plasma proteins

Answer: A

5-What physiological factor helps keep alveoli dry?

- A) High oncotic pressure of capillary blood
- B) Low hydrostatic pressure of interstitial fluid
- C) Elevated pH of alveolar lining
- D) Increased surface tension of alveolar walls

Answer: A

6. One is incorrect regard Regulation of Pulmonary Blood Flow

- A- Overall regulation of the PBF during exercise
- B- normally equals the cardiac output
- C- Local hypoxia and accumulation of CO₂ will lead to VD

Answer d

7. One is mechanism to keep lung alveoli "Dry."

- A- high net filtration pressure
- B- rich lymphatic drainage of the lungs
- C- positive pressure in the lung interstitial spaces
- D- high capillary hydrostatic pressure
- E- low plasma colloid osmotic pressure

Answer b

