

Chapter – 14 | Breathing and Exchange of Gases

QUIZ
PART-06

1. Primary site of gaseous exchange is —

- A. Trachea
- B. Bronchi
- C. Alveoli
- D. Larynx (C)

Explanation : Alveoli are thin-walled sacs surrounded by capillaries.

2. Exchange of gases occurs at —

- A. Only nostrils
- B. Alveolar membrane and between blood/tissues
- C. Only larynx
- D. Only trachea (B)

Explanation : Gas exchange occurs in lungs and at tissue level.

3. Gas exchange occurs mainly by —

- A. Simple diffusion
- B. Active transport
- C. Osmosis
- D. Endocytosis (A)

Explanation : O_2 and CO_2 move along pressure gradients by diffusion.

4. Oxygen diffuses from —

- A. Blood into alveoli
- B. Alveoli into blood
- C. Tissues into alveoli directly
- D. Trachea into oesophagus (B)

Explanation : Alveolar pO_2 is higher, so O_2 moves into blood.

5. CO_2 diffuses from —

- A. Blood into alveoli
- B. Alveoli into blood only
- C. Nose into blood
- D. Trachea into bronchi only (A)

Explanation : Deoxygenated blood has higher pCO_2 than alveoli.

6. Partial pressure of oxygen is written as —

- A. pCO_2
- B. pO_2
- C. HbO_2
- D. HCO_3^- (B)

Explanation : Partial pressure of oxygen is represented as pO_2 .

7. Partial pressure of CO_2 in alveoli is about —

- A. 0.3 mm Hg
- B. 40 mm Hg
- C. 104 mm Hg
- D. 159 mm Hg (B)

Explanation : The PPT table gives alveolar pCO_2 as 40 mm Hg.

8. pO_2 of alveolar air is about —

- A. 104 mm Hg
- B. 40 mm Hg
- C. 45 mm Hg
- D. 0.3 mm Hg (A)

Explanation : Alveolar oxygen partial pressure is about 104 mm Hg.

9. CO_2 is how many times more soluble than O_2 ?

- A. 2–3 times
- B. 5–7 times
- C. 20–25 times
- D. 100 times (C)

Explanation : CO_2 diffuses more readily because it is much more soluble.

10. Diffusion membrane mainly has how many layers?

- A. One
- B. Two
- C. Three
- D. Five (C)

Explanation : It includes alveolar epithelium, capillary endothelium and basement substance.