

Chapter – 14 | Breathing and Exchange of Gases

QUIZ
PART-07

1. The medium for transport of O_2 and CO_2 is —

- A. Blood
- B. Lymph only
- C. Bile
- D. Saliva (A)

Explanation : Blood transports both respiratory gases.

2. About how much oxygen is transported by RBCs?

- A. 3%
- B. 20%
- C. 70%
- D. 97% (D)

Explanation : Around 97% O_2 is carried by haemoglobin in RBCs.

3. Remaining oxygen is transported dissolved in —

- A. Plasma
- B. Platelets
- C. Bone marrow
- D. Lymph nodes (A)

Explanation : About 3% oxygen is carried dissolved in plasma.

4. Haemoglobin is present in —

- A. Red blood cells
- B. White blood cells
- C. Platelets
- D. Plasma only (A)

Explanation : Haemoglobin is the red iron-containing pigment of RBCs.

5. Oxyhaemoglobin is formed when haemoglobin combines with —

- A. CO_2
- B. O_2
- C. CO
- D. N_2 (B)

Explanation : Hb binds reversibly with oxygen to form HbO_2 .

6. One haemoglobin molecule can bind how many oxygen molecules?

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

Explanation : Each haemoglobin molecule can carry four O_2 molecules.

7. Oxygen binds with which ion in haemoglobin?

- A. Ferrous ion Fe^{2+}
- B. Sodium ion Na^+
- C. Calcium ion Ca^{2+}
- D. Chloride ion Cl^- (A)

Explanation : O_2 binds with Fe^{2+} of haem group.

8. Oxyhaemoglobin formation is favoured by —

- A. High pO_2 and low pCO_2
- B. Low pO_2 and high pCO_2
- C. High temperature only
- D. High H^+ concentration only (A)

Explanation : Conditions in alveoli favour oxygen binding.

9. Oxyhaemoglobin dissociation is favoured by —

- A. Low pO_2 , high pCO_2 , high H^+ and high temperature
- B. High pO_2 and low CO_2
- C. Low temperature only
- D. Absence of tissues (A)

Explanation : These tissue conditions promote release of O_2 .

10. Oxygen-haemoglobin dissociation curve is —

- A. Straight line
- B. Circular
- C. Sigmoid/S-shaped
- D. V-shaped (C)

Explanation : Haemoglobin saturation with pO_2 forms an S-shaped curve.