

Chapter – 14 | Breathing and Exchange of Gases

QUIZ
PART-04

1. Breathing means —

- A. Bringing O_2 -rich air into lungs and removing CO_2 -rich air
- B. Formation of blood cells
- C. Digestion of glucose
- D. Transport of urine (A)

Explanation : Breathing involves inspiration and expiration.

2. The lungs are present in the —

- A. Abdominal cavity
- B. Thoracic cavity
- C. Cranial cavity
- D. Pelvic cavity (B)

Explanation : Lungs lie inside the thoracic cavity.

3. Humans have how many pairs of ribs?

- A. 10 pairs
- B. 11 pairs
- C. 12 pairs
- D. 14 pairs (C)

Explanation : Human thoracic cage contains 12 pairs of ribs.

4. Air enters the lungs when intrapulmonary pressure is —

- A. Higher than atmospheric pressure
- B. Equal to atmospheric pressure always
- C. Less than atmospheric pressure
- D. Independent of pressure (C)

Explanation : Inspiration occurs when pressure inside lungs becomes lower than outside air.

5. Inspiration begins with contraction of the —

- A. Diaphragm
- B. Epiglottis
- C. Alveoli
- D. Nasal septum (A)

Explanation : Diaphragm contraction increases thoracic volume.

6. During inspiration, external intercostal muscles —

- A. Relax and lower ribs
- B. Contract and lift ribs/sternum
- C. Close the glottis
- D. Collapse the lungs (B)

Explanation : Their contraction increases thoracic volume in dorso-ventral axis.

7. Inspiration is generally an —

- A. Passive process
- B. Active process
- C. Digestive process
- D. Excretory process (B)

Explanation : Inspiration needs contraction of diaphragm and intercostal muscles.

8. Normal expiration occurs mainly due to —

- A. Relaxation of diaphragm and external intercostal muscles
- B. Contraction of vocal cords
- C. Swallowing of food
- D. Formation of pleural fluid (A)

Explanation : Relaxation returns thoracic cavity to normal and pushes air out.

9. A healthy human breathes about —

- A. 2–4 times/minute
- B. 6–8 times/minute
- C. 12–16 times/minute
- D. 30–40 times/minute (C)

Explanation : Average breathing rate is 12–16 breaths per minute.

10. Pulmonary function is clinically assessed using —

- A. Spirometer
- B. Thermometer
- C. Stethoscope only
- D. Auxanometer (A)

Explanation : Spirometer measures respiratory volumes and capacities.