

Chapter – 14 | Breathing and Exchange of Gases

QUIZ
PART-01

1. Glucose is considered cellular fuel because it is used to produce —

- A. Water only
- B. Energy/ATP
- C. Carbon dioxide only
- D. Mucus (B)

Explanation : Glucose is broken down with oxygen to release energy required for body activities.

2. The exchange of atmospheric oxygen and cellular carbon dioxide is called —

- A. Nutrition
- B. Digestion
- C. Breathing
- D. Excretion only (C)

Explanation : Breathing involves taking in O_2 and removing CO_2 from the body.

3. Which harmful gas is released during catabolic reactions?

- A. CO_2
- B. O_2
- C. N_2
- D. H_2 (A)

Explanation : Carbon dioxide is produced during catabolic reactions and must be removed.

4. Respiratory organs in animals vary according to —

- A. Only colour
- B. Only size
- C. Only age
- D. Habitat and level of organization (D)

Explanation : Different animals have different respiratory organs based on habitat and organisation.

5. Earthworm respire through —

- A. Gills
- B. Moist cuticle/body surface
- C. Lungs only
- D. Trachea (B)

Explanation : Earthworms use their moist body surface for gaseous exchange.

6. Insects mainly respire through —

- A. Tracheal system
- B. Lungs
- C. Gills
- D. Skin only (A)

Explanation : Insects have branched tubules called tracheae for gaseous exchange.

7. Gills are commonly found in —

- A. Reptiles
- B. Birds
- C. Fishes and many aquatic animals
- D. Mammals (C)

Explanation : Aquatic arthropods, molluscs and fishes commonly use gills.

8. Lungs contain small sac-like structures called —

- A. Nephrons
- B. Bronchi
- C. Tracheae
- D. Alveoli (D)

Explanation : Alveoli are microscopic sacs where gaseous exchange occurs.

9. The respiratory pigment helping in gaseous transport is —

- A. Haemoglobin
- B. Chlorophyll
- C. Melanin
- D. Keratin (A)

Explanation : Haemoglobin transports respiratory gases in blood.

10. Frogs can respire through —

- A. Only gills
- B. Only trachea
- C. Moist skin, buccopharyngeal cavity and lungs
- D. Only alveoli (C)

Explanation : Frogs show cutaneous, buccopharyngeal and pulmonary respiration.