

Chapter – 12 | Respiration in Plants**QUIZ
PART-01**

1. The ultimate source of energy for living organisms is —
A. Heat energy from soil
B. Solar energy stored by photosynthesis
C. Mechanical energy from movement
D. Energy stored in minerals (B)

Explanation : Green plants store solar energy as chemical energy during photosynthesis, and this energy is later used by organisms.

2. Cellular respiration means —
A. Formation of food using sunlight
B. Release of energy by breakdown of food substances in cells
C. Loss of water through leaves
D. Movement of minerals in plants (B)

Explanation : Cellular respiration releases energy from food and stores it in ATP.

3. In eukaryotic cells, food breakdown for energy occurs mainly in —
A. Cytoplasm and mitochondria
B. Chloroplast and nucleus
C. Vacuole and cell wall
D. Ribosome and Golgi body (A)

Explanation : Glycolysis occurs in cytoplasm, while aerobic stages occur in mitochondria.

4. The compound oxidized during respiration is called —
A. Photosynthetic pigment
B. Respiratory substrate
C. Enzyme cofactor
D. Genetic material (B)

Explanation : The food substance oxidized to release energy is known as respiratory substrate.

5. ATP is called the energy currency of the cell because —
A. It stores and provides usable energy
B. It forms cell wall
C. It absorbs oxygen
D. It produces chlorophyll (A)

Explanation : Energy released during respiration is stored in ATP and used when needed.

6. Plants exchange gases mainly through —
A. Stomata and lenticels
B. Heart and lungs
C. Xylem and phloem only
D. Flowers and fruits only (A)

Explanation : Plants do not have special respiratory organs; stomata and lenticels help in gaseous exchange.

7. Living cells in the stem are near pores called —
A. Stomata
B. Lenticels
C. Guard cells
D. Chloroplasts (B)

Explanation : Stem cells are arranged under bark and contain pores called lenticels for gas exchange.

8. Complete oxidation of glucose produces —
A. Alcohol and CO_2
B. CO_2 , water and energy
C. Lactic acid only
D. Oxygen and glucose (B)

Explanation : Aerobic respiration completely oxidizes glucose into CO_2 , H_2O and energy.

9. Aerobic respiration occurs —
A. In absence of oxygen
B. In presence of oxygen
C. Only in dead cells
D. Only in seeds (B)

Explanation : Aerobic respiration requires oxygen for complete oxidation of food.

10. Anaerobic respiration is also called —
A. Oxy respiration
B. Anoxy respiration or fermentation
C. Photosynthesis
D. Transpiration (B)

Explanation : Anaerobic respiration occurs without oxygen and produces alcohol or organic acids.