

Class: 11

Subject: biology

Topic: Respiration in plants

No. of Questions: 20

Duration: 60 Min

Maximum Marks: 60

1. ADP → ATP reaction occurs when two protons (H⁺) are passed from
- A. Thylakoid to cytosol
 - B. Thylakoid to lumen
 - C. Lumen of thylakoid to stroma
 - D. Stroma to thylakoid lumen

Answer: C

2. Where do you find cytochrome b₆-f
- A. Mitochondria
 - B. Chloroplasts
 - C. Lysosomes
 - D. Ribosomes

Answer: B

3. Kranz anatomy is typical of
- A. C₄ plants
 - B. C₃ plants
 - C. C₂ plants
 - D. CAM plants

Answer: A

4. Cut or excise & leaves remain green for long if induced to root or dipped
- A. Gibberellins
 - B. Cytokinins
 - C. Auxins
 - D. Ethylene

Answer: B

5. Movement of water from roots to aerial parts is
- A. Transpiration
 - B. Xylem transpiration
 - C. Translocation
 - D. Evaporation

Answer: C

6. Constituents of pigment system 1 are located on
- A. Granal thylakoids
 - B. Stromal thylakoids
 - C. Outer surface of granal and stromal thylakoids
 - D. Stroma

Answer: C

7. Light reaction of photosynthesis is also called
- A. Calvin's cycle
 - B. Hill's reaction
 - C. Blackman's reaction
 - D. All the above

Answer: B

8. The hormone responsible for apical dominance is
- A. IAA
 - B. GA
 - C. ABA
 - D. Florigen

Answer: A

9. First stable product of C4 photosynthesis is
- A. Phosphoglyceric acid
 - B. Ribulose 1,5-biphosphate
 - C. Malic acid
 - D. Phosphoglyceraldehyde

Answer: C

10. Oxygen containing carotenoids are
- A. Carotenes
 - B. Xanthophylls
 - C. Phycobilins
 - D. Chlorophyll

Answer: B

11. The regulator which retards ageing/ senescence of plant parts is
- A. Cytokinin
 - B. Auxin
 - C. Gibberellin
 - D. Abscisic acid

Answer: A

12. Movement of auxin is largely

- A. Centripetal
- B. Basipeta
- C. Acropetal
- D. Both B C

Answer: B

13. Maximum photosynthesis happens in

- A. Red light
- B. Green light
- C. Blue light
- D. Blue and red light

Answer: D

14. Water potential in leaf tissue is 'positive' (near zero) during

- A. Low transpiration
- B. Excessive absorption
- C. Excessive transpiration
- D. Guttation

Answer: D

15. Respiration is

- A. Catabolic process that uses carbon dioxide, produces oxygen and converts released energy to ATP
- B. Anabolic process that uses oxygen and carbon dioxide to form ATP
- C. Anabolic process that Uses oxygen, produces carbon dioxide and converts released energy into ATP
- D. act of breaking the chemical bonds in food substances, releasing the energy contained within those bonds.

Answer: D

16. The process of selective passage across a semipermeable membrane is

- A. Diffusion
- B. Osmosis
- C. Capillarity
- D. Imbibition

Answer: B

17. A water-logged soil is physiologically dry because of

- A. Anaerobic conditions
- B. Nonmovement of water capillaries
- C. Increased viscosity of water
- D. Abundance of salts

Answer: A

18. One of the fundamental features of Kranz anatomy of C4 plants is
- A. Well-developed chloroplasts in bundle sheath cells
 - B. Rudimentary chloroplasts in bundle sheath cells
 - C. Chloroplasts in epidermal cells
 - D. Chloroplasts in vascular tissues

Answer: A

19. Root hairs are
- A. Multicellular
 - B. Bicellular
 - C. Unicellular
 - D. None of the above

Answer: C

20. Force responsible for raising water in 100 ft tall trees is
- A. Transpiration pull
 - B. Root pressure
 - C. Capillary action
 - D. Air pressure

Answer: A