

**Class: 11**  
**Subject: biology**  
**Topic: Photosynthesis in higher plants**  
**No. of Questions: 20**  
**Duration: 60 Min**  
**Maximum Marks: 60**

1. The maximum loss of water in transpiration is from
- A. Lenticels
  - B. Cuticle
  - C. Stomata
  - D. Hydathodes

Answer: C

2. Water tightly held to soil particles is
- A. Bound water
  - B. Capillary water
  - C. Hygroscopic water
  - D. Runaway water

Answer: C

3. The osmotic theory of active water absorption was first given by
- A. Karmar (1941)
  - B. Eaton (1943)
  - C. Atkins (1916)
  - D. Priestley (1923)

Answer: C

4. Water is lost in liquid state in some plants through hydathodes. These hydathodes
- A. Remain always open
  - B. Do not show any specificity in opening and closing
  - C. Remain closed at night
  - D. Remain closed during day

Answer: A

5. Fermentation is caused by
- A. Agaricus
  - B. Blue green algae
  - C. Viruses
  - D. Yeast

Answer: D

6. At field capacity the soil contains
- A. Capillary and gravitational water
  - B. Capillary and runaway water
  - C. Capillary and hygroscopic water
  - D. Capillary, hygroscopic and bound water

Answer: D

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

Answer: C

8. The loss of water in the form of water drops is called
- A. Transpiration
  - B. Respiration
  - C. Guttation
  - D. Exosmosis

Answer: C

9. Growth is maximum in zone of
- A. Cell elongation
  - B. Cell division
  - C. Cell maturation
  - D. All the above

Answer: A

10. Evidence for liberation of O<sub>2</sub> from water during photosynthesis comes from
- A. Release of <sup>18</sup>O if water contains the same
  - B. Isolated chloroplast supplied with reducing agent like potassium ferrocyanide evolves O<sub>2</sub> even in absence of CO<sub>2</sub>
  - C. Photosynthetic bacteria do not liberate CO<sub>2</sub> and they use H<sub>2</sub>S for obtaining reducing power
  - D. All the above

Answer: D

11. Apical dominance is caused by
- A. Abscisic acid in lateral bud
  - B. Cytokinin in leaf tip
  - C. Gibberellin in lateral buds
  - D. Auxin in shoot tip

Answer: D

12. Algae employed by calvin et al in experiments on photosynthesis belong to

- A. Euglena
- B. Chara
- C. Chlamydomonas
- D. Chlorella

Answer: D

13. Oxygen released during photosynthesis comes from

- A. H<sub>2</sub>O
- B. CO<sub>2</sub>
- C. Protoplasm
- D. None of the above

Answer: A

14. In Krebs cycle, malate hands over hydrogen to

- A. NAD<sup>+</sup>
- B. FAD
- C. FMN
- D. Oxaloacetate

Answer: A

15. Which light range is more effective in photosynthesis?

- A. Blue
- B. Green
- C. Red
- D. Voilet

Answer: C

16. Which is influenced by opening and closing of stomata

- A. Active water absorption
- B. Passive water absorption
- C. Both types of water absorption
- D. Rate of growth

Answer: B

17. When a cell is placed in 0.25 M concentrated sugar solution, there is no change in it. So the external solution is called

- A. Hypertonic
- B. Isotonic
- C. Hypotonic
- D. None of the above

Answer: B

18. Guttation is from

- A. Uninjured edges of leaves near vein endings
- B. Epidermal layers of leaf surfaces
- C. Injured edges of leaves
- D. None of the above

Answer: A

19. In CAM Plants CO<sub>2</sub> required for photosynthesis enters the plant during

- A. Night through the stomata which are kept open
- B. Daytime through lenticles
- C. Night when hydathodes are open
- D. Daytime when the stomata are open

Answer: A

20. Phytohormone connected with closing of stomata is

- A. ABA
- B. Kinetin
- C. GA
- D. IBA

Answer: A