

WORK SHEET – 22 (SOLUTIONS)

Class: IX Sub: LIFE SCIENCE

Date: 01.05.2020

Topic: <u>Photosynthesis: Light Phase</u> F.M. : 15

Choose the correct option:

(1x15=15)

- 1. The First Phase of Photosynthesis is called:
 - a) Photo chemical Phase b) Light dependent c) Light phase d) All of these **Answer : All of these (d)**
- 2. The chlorophyll molecules are present on :
 - a) Chloroplast b) Membrane of grana c) Stroma d) Grana Answer: Membrane of grana (b)
- 3. The chlorophyll molecules are activated by :
 - a) Protons b) Electrons c) Photons d) All of these **Answer : Photons (c)**
- 4. In photosynthesis :
 - a) Light energy is converted to chemical energy b) Light energy is released

c) Chemical energy is converted to light energy d) Chemical energy remains unaltered

Answer : Light energy is converted to chemical energy (a)

- 5. The splitting of water is important to :
 - a) Produce oxygen b) Compensate the loss of electrons from chlorophyll
 - c) Both (a) and (b) d) Trap sunlight

Answer: Both (a) and (b) (c)

- 6. There are ______ types of photophosphorylation :
 - a) One b) Two c) Three d) Five

Answer : Two (b)

- 7. For photophosphorylation the two important criteria :
 - a) ADP b) Chlorophyll c) Light d) Both (a) and (c)

Answer: Both (a) and (c) (d)

- 8. The following are the types of photophosphorylation :
 - a) Cyclic b) Non-cyclic c) Oxidation d) Cyclic and Non-cyclic **Answer: Cyclic and Non-cyclic (d)**

- 9. The source of oxygen in light reaction is :
 - a) Hydroxyl ions b) Protons c) Water d) None of these **Answer : Hydroxyl ions (a)**
- 10. The Hydroxyl ions have the following function :
 - a) Produce Oxygen b) Produce water as a raw material c) donate Electronsd) All of these

Answer: All of these (d)

- 11. The end products of light reaction is/are :
 - a) Oxygen b) ATP c) NADPH₂ d) All of these

Answer: All of these (d)

- 12. The protons produced from photolysis of water are used to:
 - a) Produce Oxygen b) Produce Water c) Reduce NADP d) None of these **Answer: Reduce NADP (c)**
- 13. Hill reaction takes place in :
 - a) Dark Phase of Photosynthesis b) Light Phase c) Both light and dark phase
 - d) At any time

Answer: Light Phase (b)

- 14. ATP formation during Photosynthesis is known as :
 - a) Phosphorylation b) Photophosphorylation c) Oxidative phosphorylation
 - d) none of these

Answer: Photophosphorylation (b)

- 15. Which one is the energy currency produced during light reaction :
 - a) AMP b) ADP c) ATP d) Phosphate **Answer : ATP (c)**

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