



ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

WORK SHEET – 24 (SOLUTIONS)

Class: IX

Sub: LIFE SCIENCE

Date: 11.05.2020

Topic: SIGNIFICANCE OF PHOTOSYNTHESIS, C-2 and C-3 CYCLE

F.M. : 15

Choose the correct option:

(1x15=15)

1. The highly energized invisible solar particles are called:

- a) Protons b) UV rays c) Photons d) None of these

Answer : Photons (c)

2. The aggregates of chlorophyll molecules and accessory molecules are called :-

- a) Photosystems b) Light Harvesting complexes c) Quantasome d) All of these

Answer : All of these (d)

3. Significance of photosynthesis :-

- a) Conversion of light energy to chemical energy b) Conversion of chemical energy to light energy c) Conversion of light energy to kinetic energy d) All of these

Answer : Conversion of light energy to chemical energy (a)

4. CO₂-O₂ balance is maintained in the atmosphere by :-

- a) Transpiration b) Nutrition c) Osmosis d) Photosynthesis

Answer : Photosynthesis (d)

5. Photosynthesis results in the production of :-

- a) Fructose b) Sucrose c) Glucose d) All of these

Answer : Glucose (c)

6. Glucose produced in the photosynthesis is stored as :-

- a) Sucrose b) Starch c) Cellulose d) Glycogen

Answer : Starch (b)

7. Food prepared in the Photosynthesis is stored in plant body parts :-

- a) Root b) Modified stem c) fruit d) All of these

Answer : All of these (d)

8. How are the animals dependent on Photosynthesis?

- a) Directly b) Indirectly c) Both directly and indirectly d) None of the above

Answer : Both directly and indirectly (c)

9. The following is not the pathway for carbon assimilation:-

- a) C₂ - pathway b) C₃ - pathway c) C₅ – pathway d) CAM

Answer : C₅ – pathway (c)

10. The process by which green plants liberate oxygen in presence of light :-

- a) Respiration b) Photosynthesis c) Photo respiration d) None of these

Answer : Photo respiration (c)

11. The first stable product of C-2 cycle is :-

- a) Phosphoglyceric acid b) Phospho-glycolic acid c) Glycolic acid d) Phosphorus

Answer : Phospho-glycolic acid (b)

12. Advantages of C-2 cycle:-

- a) Produces amino acids glycine and serine b) Co- ordinates among organelles like chloroplast, microbody and mitochondria
c) Produces Phospho-glycolic acid
d) Both (a) and (b)

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

13. In which carbon trafficking mechanism Rubisco functions as oxygenase enzyme:-

- a) C₃- cycle b) C-4 cycle c) C-2 cycle d) C-1 cycle

Answer : C-2 cycle (c)

14. What is the significance of Photosynthesis?

- a) Balance between O₂ and CO₂ b) Conversion of light energy to chemical energy
c) Production of food d) All of these

Answer : All of these (d)

15. The organelles which are involved in C-2 cycle along with chloroplasts are :-

- a) Mitochondria b) Ribosomes c) Microbody d) Mitochondria and Microbody both

Answer : Mitochondria and Microbody both (d)

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