



ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

SOLUTIONS- 34

Class: IX

Sub: LIFE SCIENCE

Date: 09.07.2021



Topic: Photosynthesis:Dark PhaseC-3 AND C-2 CYCLE F.M. : 15

Choose the correct option:

(1x15=15)

1. Photosynthesis cannot take place at night due to :-
a) Lack of sufficient light b) Stomata remains closed c) Photolysis does not occur
d) All of these

Answer : All of these (d)

2. The fixation of carbon dioxide is brought by the acceptor :-
a) Ribulose biphosphate b) Ribulose monophosphate c) Phosphoglyceric acid
d) None of these

Answer: Ribulose biphosphate (a)

3. The site of Dark phase is :-
a) Grana b) Membrane of thylakoid c) Stroma d) All of these

Answer : Stroma (c)

4. The first stable compound in C₃ cycle is :-
a) Pyruvic acid b) 3-Phosphoglyceric acid c) 2-Phosphoglyceric acid
d) Phosphoenolpyruvic acid

Answer : 3-Phosphoglyceric acid (b)

5. C-3 cycle is also named as :-
a) Calvin cycle b) Biosynthetic phase c) Light Independent phase d) All of these

Answer: All of these(d)

6. Full form of RuBP is :-
a) Ribulose Bisphosphate b) Ribulose 1,5, Biphosphate c) Ribulose phosphate
d) Both (a) and (b)

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

7. The process by which green plants liberate oxygen in presence of light :-
a) Respiration b) Photosynthesis c) Photo respiration d) None of these

Answer: Photorespiration (C)

8. The first stable product of C-2 cycle is :-
a) Phosphoglyceric acid b) Phospho-glycolic acid c) Glycolic acid d) Phosphorus

Answer: Phosphoglycolic acid (b)

9. The phases of Calvin cycle are :-
a) Carbon fixation b) Reduction c) Regeneration of RuBPd) All of these
Answer : All of these (d)
10. Reduction of Phosphoglyceric acid is brought about by :-
a) ATP b) Protons c) NADPH₂d) Both ATP and NADPH₂
Answer: Both ATP and NADPH₂(d)
11. The reduction of phosphoglyceric acid forms the compound :-
a) Phosphoenolpyruvic acid b) Pyruvic acid c) Phosphoglyceraldehyde
d) Phosphoric acid
Answer: Phosphoglyceraldehyde(c)
12. 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 (d)
13. Phosphoglyceraldehyde is used to :-
a) Produce glucose b) Regenerate RuBP c) Produce phosphoglyceric acid
d) Both (a) and (b)
Answer: Both (a) and (b)
14. Which of the following occurs during the dark phase of photosynthesis?
a) Carbon dioxide is released b) ATP is generated c) Phosphoglyceraldehyde is synthesized
d) Oxygen is produced
Answer: Phosphoglyceraldehyde is synthesized (b)
15. Synthesis of carbohydrate which takes place in Calvin Cycle is :-
a) Fructose b) Glucose c) Sucrose d) Both glucose and fructose
Answer : Glucose (b)

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