



ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

WORK SHEET – 23 (SOLUTIONS)

Class: IX

Sub: LIFE SCIENCE

Date: 02.05.2020

Topic: Photosynthesis: Dark Phase

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) Phosphoenol pyruvic 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)

7. The chief enzyme which brings about fixation of carbon dioxide is :-
a) Epimerase b) Rubisco c) Aldolase d) Triose phosphate kinase

Answer: Rubisco (b)

8. Calvin cycle is divided into _____ phases :-
a) Two b) Four c) Three d) Five

Answer: Three (c)

9. The phases of Calvin cycle are :-
a) Carbon fixation b) Reduction c) Regeneration of RuBP d) All of these
Answer : All of these (d)
10. Reduction of Phosphoglyceric acid is brought about by :-
a) ATP b) Protons c) NADPH₂ d) Both ATP and NADPH₂
Answer: Both ATP and NADPH₂ (d)
11. The reduction of phosphoglyceric acid forms the compound :-
a) Phosphoenol pyruvic acid b) Pyruvic acid c) Phosphoglyceraldehyde
d) Phosphoric acid
Answer: Phosphoglyceraldehyde (c)
12. Phosphoglyceraldehyde is used to :-
a) Produce glucose b) Regenerate RuBP c) Produce phosphoglyceric acid
d) Both (a) and (b)
Answer: Both (a) and (b)
13. What type of process is photosynthesis ?
a) Anabolic b) Catabolic c) Metabolic d) None of these
Answer: Anabolic (a)
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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