

Class : XIth
Date :

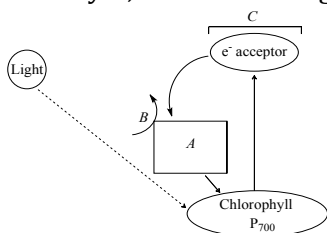
Subject : BIOLOGY
DPP No. : 7

Topic :- Photosynthesis in Higher Plants

- Photosynthesis is a
 - Catabolic process
 - Anabolic process
 - Amphibolic process
 - Catalytic process
- Beyond of saturation point, the photosynthesis begins to decline because of
 - Photo inhibition
 - Photo-oxidation
 - Photo-reduction

Select the/correct option which matches with statement

- I and III
 - III and II
 - I, II, and III
 - I and II
- A chemical substance when irradiated with UV rays, absorb radiations and emits visible light is called
 - Luminescent
 - Fluorochrome
 - Bioluminescence
 - Metachrome
 - Identify A, B and C in the given figure of cyclic phosphorylation and choose the correct option accordingly



- A-ETS, B-ADP + Pi → ATP, C-PS-II
 - A-ETS, B-ADP + Pi → ATP, C-PS-I
 - A-NADH₂, B-ADP + Pi → ATP, C-PS-I
 - A-NADH₂, B-ADP + Pi → ATP, C-PS-II
- Chlorophyll-*a* and *b* differ in having
 - Chlorophyll-*a* has a methyl group and chlorophyll-*b* has aldehyde group in position X
 - Chlorophyll-*a* has an aldehyde group and chlorophyll-*b* has a methyl group in position X
 - Chlorophyll-*a* has a carboxyl group and Chlorophyll-*b* has an aldehyde group in position X
 - Chlorophyll-*a* has an ethyl group and Chlorophyll-*b* has an aldehyde group in position X
 - Of the total incident solar radiation the proportion of PAR is
 - About 60%
 - Less than 50%
 - More than 80%
 - About 70%
 - Who discovered that light is essential for releasing oxygen in plants?
 - Stephen Hales
 - Lavoisier
 - Jan Ingenhousz
 - Von Helmont

8. How many Calvin cycles are required to produce 5 molecules of glucose?
 a) 60 b) 15 c) 30 d) 90
9. During light reaction of photosynthesis
 a) ADP is phosphorylated and NADPH oxidised
 b) ADP is phosphorylated and NADP reduced
 c) ADP is phosphorylated and NADPH reduced
 d) ATP is phosphorylated and NADPH reduced
10. The ATP production in photosynthesis is called
 a) Phototropism b) Phosphorylation
 c) Photooxidation d) Photophosphorylation
11. Who described the first action spectrum of photosynthesis?
 a) Sachs b) Engelmann c) Arnold d) Von Helmont
12. Who provided the evidence for the production of glucose when plant grows?
 a) Julius von Sachs b) Stephen Hales c) Lavoisier d) Von Helmont
13. Which of the following is used during discovery of Calvin cycle?
 a) *Spirogyra* b) *Volvox* c) *Chlamydomonas* d) *Chlorella*
14. The movement of electrons in ETC in light reaction is?
 a) Up hill in terms of redox reaction b) Down hill in terms of redox reaction
 c) Either (a) or (b) d) Both (a) and (b)
15. The wavelength of light absorbed by P_r form of phytochrome is
 a) 640 nm b) 680 nm c) 720 nm d) 620 nm
16. In C_4 - plants, the carbon dioxide fixation occurs in
 a) Guard cells b) Spongy cells c) Palisade cells d) Bundle sheath cells
17. What is the name given to the flattened membranous sacs which are embedded in the matrix of the chloroplast?
 a) Thylakoids b) Granum c) Stroma d) Mesophyll cells
18. C_4 -plants are more efficient in photosynthesis than C_3 plants due to
 a) Higher leaf area
 b) Presence of larger number of chloroplasts in the leaf cells
 c) Presence of thin cuticle
 d) Lower rate of photorespiration
19. Which of the following is maximum in chloroplast?
 a) RuBP carboxylase b) Hexokinase c) Phosphatase d) Nuclease

20. Photolysis of water releases

I. electron

II. proton

III. oxygen

Select the correct option

a) I and II

b) II and III

c) I and III

d) I, II and III

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