

DPP

DAILY PRACTICE PROBLEMS

Class : XIth

Date :

Subject : BIOLOGY

DPP No. : 3

Topic :- Photosynthesis in Higher Plants

- Etiolation in plants is caused when they

a) Are grown in dark	b) Have mineral deficiency
c) Are grown in intense light	d) Are grown in blue light
- Dichlorophenyl dimethylurea inhibits

a) PS-I	b) PS-II
c) Chloroplast functioning	d) Oxidative phosphorylation
- Photosynthetic pigments in chloroplast are embedded in the membrane of

a) Photoglobin	b) Matrix	c) Thylakoid	d) Mitochondria
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- Pigments can be separated from leaf by

a) ELISA test	b) RIA test
c) Centrifugation	d) Paper chromatography
- In which of the following, oxygen does not evolve during photosynthesis?

a) Photosynthetic red algae
b) Photosynthetic green algae
c) Photosynthetic blue-green algae
d) Photosynthesis bacteria
- Who proved that the organic matter is synthesised from carbon dioxide and water during the photosynthesis?

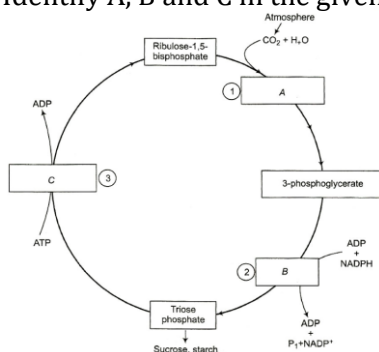
a) Liebig	b) Priestley	c) Ingen Housz	d) Von Mayer
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- Which of the following statements is true with regard to the light reaction of photosynthesis?

a) In PS-II the reaction centre chlorophyll- α has an absorption peak at 700 nm hence, is called P ₇₀₀	b) In PS-I the reaction centre chlorophyll- α has an absorption maxima at 680 nm and is called P ₆₈₀
c) The spitting of water molecule is associated with PS-I	d) Photosyntheses-I and II are involved in Z scheme
- In Calvin cycle, the first product identified was

a) 3-phosphoglyceric acid	b) 2-phosphoglyceric acid
c) 1-phosphoglyceric acid	d) 4-phosphoglyceric acid
- I. Water is oxidised in PS-I not in PS-II
 II. Light is needed for both PS-I and PS-II
 III. Due to photolysis of water, formation of ATP and NADPH occurs
 IV. Production of NADPH and H⁺ is associated with PS-II not PS-I
 Identify the true statement and select the correct option

- a) I and II b) II and III c) I and IV d) II and IV

10. PS-I is located on the
 a) Non-appressed part of a grana thylakoids b) Stroma thylakoids
 c) Appressed part of grana thylakoids d) Both (a) and (b)
11. I. Chlorophyll-*a*
 II. Chlorophyll-*b*
 III. Anthocyanin
 Select the correct option regarding water soluble pigment
 a) I and II b) Only II c) Only I d) I and II
12. C_4 -plant minimises the photorespiration because C_4 -plants
 a) Use PEPcase to initiate CO_2 fixation b) Do not carry out the Calvin cycle in low CO_2 level
 c) Exclude Calvin cycle d) Show photorespiration
13. In the process of photosynthesis, water molecule breaks during
 a) Red drop b) Photolysis
 c) Phosphorylation d) Carbon assimilation
14. Identify A, B and C in the given figure, and choose the correct option from the set (A-C) given below



- a) A-Reduction, B-Carboxylation, C-Regeneration
 b) A-Reduction, B-Regeneration, C-Carboxylation
 c) A-Carboxylation, B-Reduction, C-Regeneration
 d) A-Carboxylation, B-Regeneration, C-Reduction
15. In grana of chloroplast, the reaction $ADP + P_i = ATP$ during day shows
 a) Oxidative phosphorylation b) Photophosphorylation
 c) Substrate level phosphorylation d) Dephosphorylation
16. Very strong light has a direct inhibiting effect on photosynthesis, which is known as
 a) Solarization b) Etiolation c) Chlorosis d) Defoliation
17. What is the effect of high CO_2 concentration and higher values of ATP/ADP ratio?
 a) Rate of Calvin cycle increased b) Rate of Krebs cycle decreased
 c) Rate of glycolate cycle decreased d) All of the above
18. pH of thylakoid lumen during photosynthesis is
 a) Basic b) Neutral
 c) Acidic d) Depends on H^+ concentration

19. Head portion of the chlorophyll is called ...A... . Tail portion of the chlorophyll is called ...B... . Fill in the with respect to A, B and tick the appropriate option
- a) A-phytol, B-porphyrin b) A-porphyrin, B-phytol
c) A-pyrrole ring, B-phytol d) A-porphyrin, B-pyrrole ring
20. Members of family-Crassulaceae perform
- a) C_3 -photosynthesis b) CAM-photosynthesis c) C_4 -photosynthesis d) All of these



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