

PG-CET-BOTANY

PRACTICE BITS ON "PHOTOSYNTHESIS"-2

- 1) In the chloroplast of bundle sheath cells of C₄ plants NADP is reduced by [1]
1) Malic enzyme 2) FNR (Ferredoxin NADP Reductase)
3) NADP dehydrogenase 4) Malic dehydrogenase
- 2) Find out the mismatch [3]
1) C₃ Cycle----- Calvin
2) C₄ Cycle----- Hatch & Slack
3) Photophosphorylation----- Hill & Bendal
4) Chemiosmotic Hypothesis----- Peter Mitchell
- 3) Which of following is **not** involved in CO₂ fixation? [1]
1) C₂-Cycle 2) C₃-Cycle 3) C₄-Cycle 4) CAM-Cycle
- 4) Which of the following is not a C₄ plant? [4]
1) Wheat 2) Rice 3) Oats 4) All of these
- 5) Chloroplast Dimorphism is found in [2]
1) C₃ plants 2) C₄ plants 3) CAM plants 4) Both 2 & 3
- 6) First CO₂ acceptor in CAM plants is [3]
1) RuBP 2) OAA 3) PEP 4) Malic acid
- 7) Kranz anatomy is found in [2]
1) C₃ plants 2) C₄ plants 3) CAM plants 4) Both 2 & 3
- 8) CO₂ fixation & Calvin cycle are separated by time in [3]
1) C₃ plants 2) C₄ plants 3) CAM plants 4) Both 2 & 3
- 9) CO₂ fixation & Calvin cycle are separated by space in [2]
1) C₃ plants 2) C₄ plants 3) CAM plants 4) Both 2 & 3
- 10) RuBisCO is synthesized in/on [1]
1) Stroma of Chloroplast 2) Matrix of Mitochondria
3) RER of Cytoplasm 4) Nucleus
- 11) Which of the following does not occur during cyclic photophosphorylation? [4]
1) Photolysis of H₂O 2) Evolution of O₂
3) Formation of NADPH₂ 4) All of these
- 12) Which plants usually show more Xerophytic adaptations? [4]
1) C₃ plants 2) C₄ plants 3) CAM plants 4) Both 2 & 3

- 13) Which of the following is low in C₄ plants than C₃ plants? [3]**
- 1) Productivity
 - 2) Tolerance to abiotic stresses
 - 3) Photorespiration
 - 4) NO of NADPH₂ utilized for the synthesis of one glucose during C₃ cycle
- 14) PGA is the first stable compound during C₃ cycle which was discovered by Calvin in [2]**
- 1) Chlamydomonas 2) Chlorella 3) Acetabularia 4) Oedogonium
- 15) C₄ plants have better productivity than C₃ plants because [3]**
- 1) C₄ plants absorb more CO₂
 - 2) C₄ plants absorb more light
 - 3) C₄ plants lack photo respiration
 - 4) C₄ plants have more amount of RuBisCO
- 16) Black man's law of limiting factor is applicable to [4]**
- 1) photosynthesis 2) Respiration 3) Protein synthesis 4) All of these
- 17) C₄ plants show tolerance to high salinity due to [3]**
- 1) presence of kranz anatomy
 - 2) presence of suberised bundle sheath cells
 - 3) presence of more organic acids
 - 4) the ability to prevent water loss
- 18) H₂O₂ is formed during Photorespiration in [2]**
- 1) Chloroplast 2) Peroxisomes 3) Mitochondria 4) Glyoxysomes
- 19) First reaction in C₂ cycle is [2]**
- 1) Carboxylation 2) Oxygenation 3) Reduction 4) Phosphorylation
- 20) In C₄ plants, the bundle sheath cells are characterised by [4]**
- 1) having agranal chloroplast 2) Thick suberised cell walls
 - 3) having RuBisCO 4) All of these
- 21) Which of the common event occurs in both Cyclic & Non- cyclic photophosphorylations? [1]**
- 1) ATP formation 2) NADPH₂ formation
 - 3) Evolution of O₂ 4) Photolysis of H₂O
- 22) The herbicide DCMU inhibits [2]**
- 1) PS-I 2) PS-II 3) Photolysis 4) Cyclic Photophosphorylation

- 23) The final acceptor of both electrons & protons during Z-Scheme is [3]**
1) H_2O 2) PQ^{\ominus} 3) NADP^+ 4) PQH_2
- 24) The ultimate acceptor cum donor of both electrons & protons during Z- Scheme is [1]**
1) H_2O 2) PQ^{\ominus} 3) NADP^+ 4) PQH_2
- 25) First formed 2 Carbon compound during Photorespiration is [2]**
1) Glycine 2) Phospho glycolate 3) Glycolate 4) Glyoxalate
- 26) Proton reservoir of Chloroplast is [3]**
1) Cytoplasm 2) Peri plastidial space
3)Stroma 4) Lumen of grana thylakoids
- 27) During C₂ Cycle both phosphorylation & dephosphorylation occur in [1]**
1) Chloroplast 2) Mitochondria 3) Peroxisome 4) Cytoplasm
- 28) Glucose synthesis occurs during which phase of C₃ cycle? [2]**
1) Carboxylation 2) Reduction 3) Regeneration 4) Light phase
- 29) Most abundant photosynthetic pigment in higher plants is [1]**
1) Chl-a 2) Chl-b 3) Lutein 4) β -Carotene
- 30) Which type of Chlorophyll does not have phytol tail? [3]**
1) Chl-a 2) Chl-b 3) Chl-c 4) Chl-d

ALL THE BEST

**By
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