PG-CET-BOTANY

PRACTICE BITS ON "PHOTOSYNTHESIS"-I

1) Basic function of photosynthesis is to **[4]**

1) release energy 2) release of O_2
3) form ATP and $NADPH_2$ 4) reduce the CO_2

2) Photosynthesis is a **[2]**

1) Anabolic, Reductive, exergonic process
2) Anabolic, Reductive, endergonic process
3) Anabolic, oxidative, endergonic process
4) Anabolic, oxidative, exergonic process

3) Which of the following is not produced during the light phase of photosynthesis? **[1]**

1) Glucose 2) $NADPH_2$ 3) O_2 4) ATP

4) No of Calvin cycles required to make one molecule of sucrose is **[2]**

1) 6 2) 12 3) 18 4) 24

5) Cuscuta shows maximum photosynthesis in **[4]**

1) Blue light 2) Red light 3) Green light 4) None of these

6) Which of the following does not take place during light reaction? **[3]**

1) Photolysis of water 2) Evolution of O_2
3) CO_2 fixation 4) Reduction of NADP

7) Oxygen is a competitive inhibitor to **[1]**

1) RuBisCO 2) PEP Carboxylase 3) ATPase 4) Malic enzyme

8) Natural limiting factor for photosynthesis in C_3 plants is **[2]**

1) Light 2) CO_2 3) Chlorophyll 4) Water

9) Which serves as both reactant & product in photosynthesis of higher plants? **[3]**

1) CO_2 2) O_2 3) H_2O 4) Glucose

10) Final CO_2 acceptor of C_4 cycle is **[2]**

1) PEP 2) RuBP 3) Malic acid 4) OAA

11) Which of the bifunctional enzyme during Photosynthesis? **[1]**

1) RuBisCO 2) PEP Carboxylase 3) ATPase 4) Malic enzyme

12) Pigments which are not found in higher plants are **[4]**

1) Chlorophyll-a 2) Chlorophyll-b 3) Carotenoids 4) Phycobilins

13) In Aquarium, green plants are grown to / for **[3]**

1) increase beauty 2) food for fishes
3) O_2 production 4) CO_2 production

14) No of ATP required for the regeneration of 6 PEP in C_4 pathway for 1 glucose are **[2]**

1) 2 2)12 3) 18 4) 30

15) The enzyme not found in a C_3 plant is **[3]**

1) RuBisco 2) FNR 3) PEP carboxylase 4) ATPase

16) Warburg effect is decrease in the rate of photosynthesis at **[4]**

1) low CO_2 concentration 2) high CO_2 concentration
3) low O_2 concentration 4) high O_2 concentration

17) Wave length of PAR is **[4]**

1) 390-760 mm 2) 400-700 nm 3) 500-650 nm 4) 390-760 nm

18) Which of the following would not be a limiting factor in photosynthesis? **[2]**

1) CO_2 2) O_2 3) H_2O 4) Light

19) Which of the following is not C_4 plant? **[1]**

1) Wheat 2) Maize 3) Sugarcane 4) Barley

20) Both PEP Carboxylase & RuBisco are found in **[4]**

1) C_4 plants 2) CAM plants 3) C_3 plants 4) both 1 & 2

21) Rubisco belongs to which class of Enzymes? **[3]**

1) Oxidoreductases 2) Transferases
3) Lyases 4) Ligases

22) Ultimate donor of both electron and proton during light phase is **[3]**

1) PQH_2 2) $NADPH_2$ 3) H_2O 4) Plastocyanin

23) PEP carboxylase is found in **[4]**

1) Chloroplast of bundle sheath cells 2) Cytosol of bundle sheath cells
3) Chloroplast of mesophilic cells 4) Cytosol of mesophilic cells

24) How many water molecules are involved for the formation of 3 O_2 during Z- scheme? **[2]**

1) 3 2) 6 3) 9 4) 12

25) Movement of H^+ from lumen to stroma through the F_0 of ATPase is **[2]**

1) simple diffusion 2) facilitated diffusion 3) active transport 4) osmosis

26) The mobile electron carrier of lumen side in Z-scheme has this metal

1) Mn 2) Ca 3) Cu 4) Fe **[3]**

27) Which of the following is not a pentose sugar? **[2]**

1) Ribose 2) Erythrose 3) Xylulose 4) Ribulose

28) In Z-scheme, enzymatic transfer of electron occurs between **[1]**

1) Fd to NADP 2) PQ to PC 3) PS-I to A 4) PS-II to pheophytin

29) Which colour is not absorbed by Chlorophyll from VIBGYOR? **[1]**

1) Green 2) Blue 3) Red 4) Indigo

30) Couple of aminoacids formed during photorespiration are **[2]**

1) Glycine, Lysine 2) Glycine, Serine 3) Serine, Lysine 4) Leucine, Serine

ALL THE BEST

By

D.R