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8.3 Photosynthesis

Easy

BIOLOGY

IB HL

EXAM PAPERS PRACTICE

8.3 Photosynthesis

Question Paper

Course	DP IB Biology
Section	8. Metabolism, Cell Respiration & Photosynthesis (HL Only)
Topic	8.3 Photosynthesis
Difficulty	Easy

Time allowed: 10

Score: /5

Percentage: /100

Question 1

During which of the following processes does carbon fixation occur?

A. Light dependent reactions

B. Photolysis

C. Calvin cycle

D. Chemiosmosis

[1 mark]

Question 2

Which of the following scientists conducted experiments that explained the conversion of carbon into carbohydrates during photosynthesis?

A. Martin Kamen

B. Samuel Ruben

C. Peter Mitchell

D. Melvin Calvin

[1 mark]

Question 3

Which of the following correctly identifies the location of the light-dependent reactions?

A. In the stroma of the chloroplast

B. In the thylakoid intermembrane space

C. On the outer membrane of the mitochondria

D. On the outer membrane of the chloroplast

[1 mark]

Question 4

Which of the following would be a suitable definition for the term 'photolysis'?

A. The splitting of water molecules using light energy

B. The splitting of an oxygen molecule into oxygen atoms

C. The splitting of water into protons, neutrons and oxygen

D. The splitting of water by means of hydrolysis reactions

[1 mark]

Question 5

Which of the following would **not** be considered an adaptation of chloroplasts to photosynthesis?

A. The granal stacks create a large surface area for the maximum absorption of light by the photosystems

B. The presence of ribosomes allows for the formation of the necessary polysaccharides involved with photosynthesis

C. The chloroplast DNA contains genes coding for proteins and enzymes used in photosynthesis

D. The stroma contains enzymes that catalyse the reactions of the light-independent stage

[1 mark]