

1. Nov/2023/Paper\_9700/41/No.1

Chloroplasts carry out photosynthesis.

Fig. 1.1 shows some structural features of a chloroplast and some processes that occur within it.

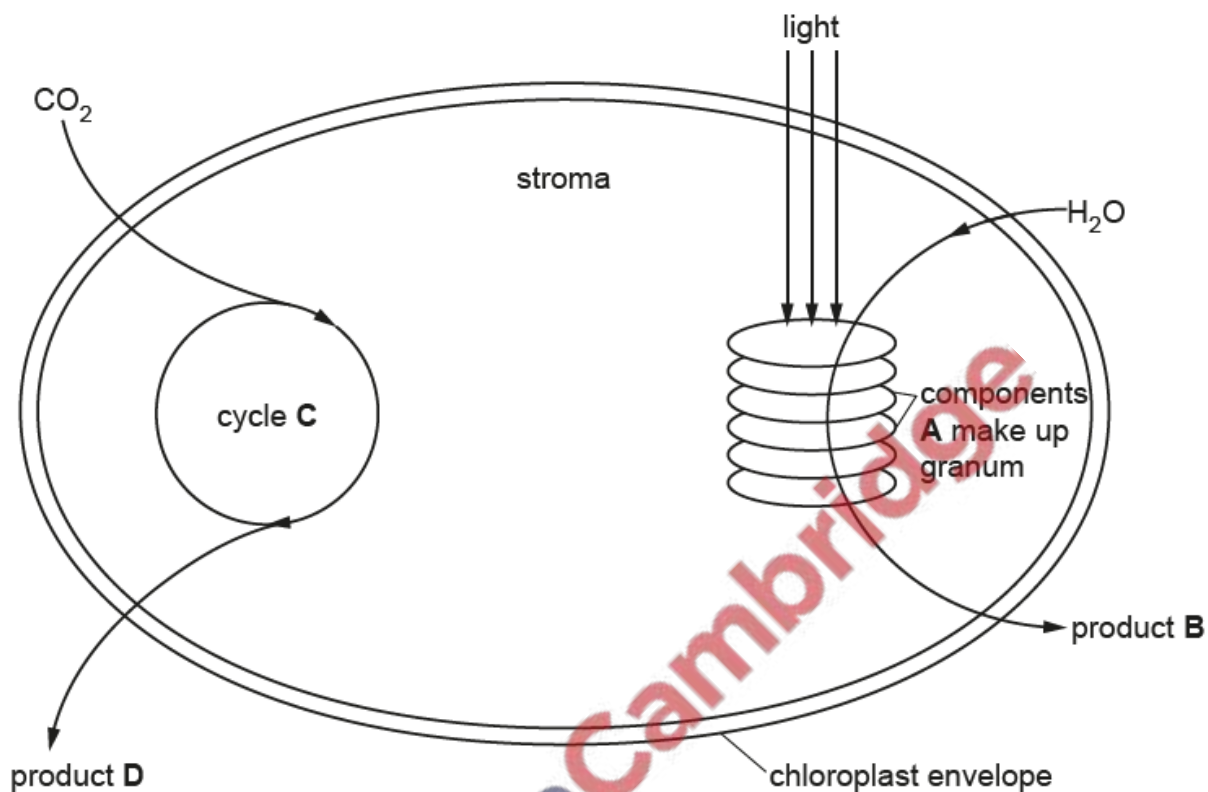


Fig. 1.1

(a) (i) Identify the structures labelled A in Fig. 1.1.

A .....

[1]

(ii) Explain how the structure **and** appearance of the granum, and the components labelled **A**, relate to their function.

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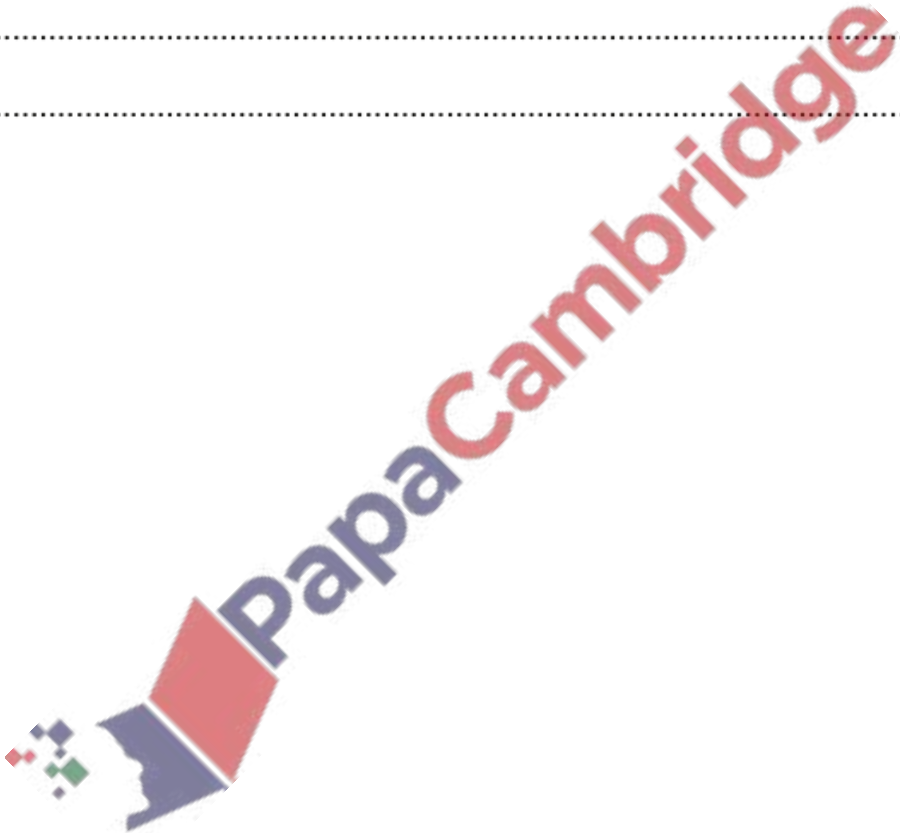
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..... [4]



(b) (i) Identify the metabolic pathway labelled cycle **C** in Fig. 1.1.

**C** ..... [1]

(ii) Explain why pathway **C** is described as a cycle.

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..... [2]

(c) (i) Identify the products of photosynthesis labelled **B** and **D** in Fig. 1.1.

**B** .....

**D** ..... [2]

(ii) Suggest **and** explain the importance of glucose and the product labelled **B** in Fig. 1.1 to ecosystems.

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[Total: 13]