

6 (a) State **and** explain why the same leaf of a plant can be described as a source or as a sink, depending on the stage of maturity (age) of the leaf.

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..... [2]

(b) Fig. 6.1 lists seven types of plant cell found in leaves.

- | | |
|---|---------------------------|
| 1 | epidermal cell |
| 2 | guard cell |
| 3 | palisade mesophyll cell |
| 4 | phloem sieve tube element |
| 5 | sclerenchyma cell |
| 6 | spongy mesophyll cell |
| 7 | xylem vessel element |

Fig. 6.1

Match the correct type of cell from the list in Fig. 6.1 with each statement, **A** to **E**.

Each cell type can be used once, more than once, or not at all.

The first match has been done for you.

- A** This is a thick-walled cell that provides support. 5
.....
- B** This cell is one of a pair of cells that form a stoma.
- C** This cell receives water to build up hydrostatic pressure for mass flow.
- D** This cell needs water for photosynthesis and is columnar-shaped.
- E** This cell secretes a waxy substance to help prevent water loss.

[4]

[Total: 6]