

6 Humans have found that plants are a valuable source of cellulose, starch and fibres.

(a) The table below lists some statements about polysaccharides.

Indicate whether each statement is true or false by placing a cross (☒) in the appropriate box.

(5)

Statements	True	False
Polymer of glucose	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Molecule contains $\alpha$ and $\beta$ glucose	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Glycosidic bonds present	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Molecule may have side branches	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Molecule can form hydrogen bonds with adjacent molecules	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

(b) The clear window in this sandwich packaging is made from starch rather than plastic.



clear window  
made from starch

Suggest how this use of starch, rather than plastic, may contribute to **sustainability**.

(2)

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(c) Plant stems contain xylem vessels and sclerenchyma fibres.

Give **one** similarity and **one** difference between xylem vessels and sclerenchyma fibres.

(2)

Similarity .....

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Difference .....

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**(Total for Question 6 = 9 marks)**

