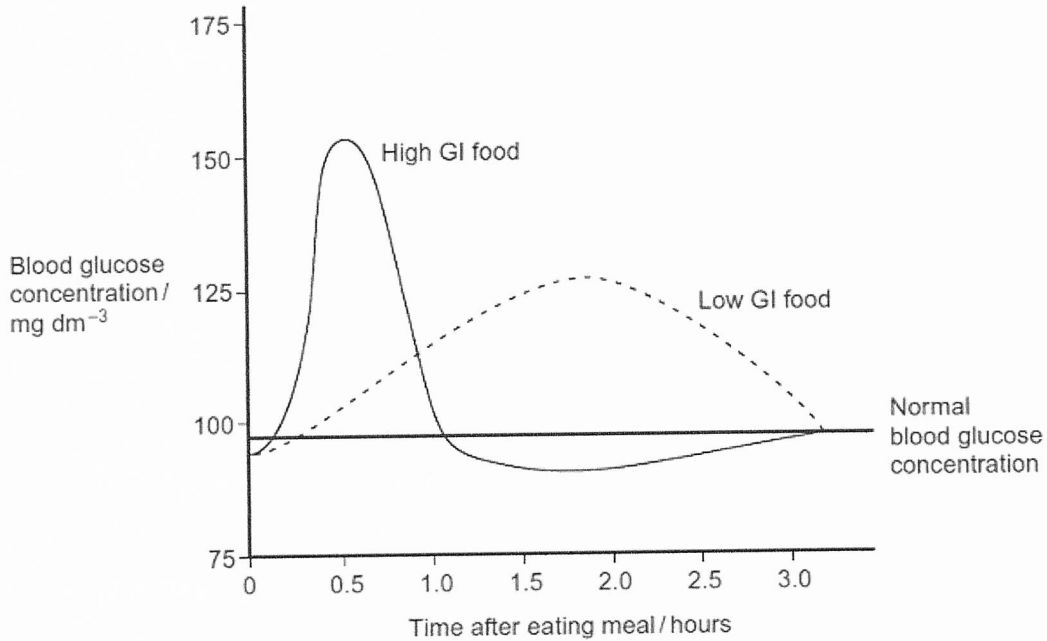


Exam Question Carbohydrates

The GI of a food depends on several factors such as how much starch and sugars it contains. High GI foods include those containing lots of simple sugars or white flour. The carbohydrates in these foods are rapidly digested and absorbed. Low GI foods include wholegrain bread and breakfast cereals that contain a lot of fibre. The carbohydrates in these foods are digested and absorbed more slowly.

The following figure shows changes in blood glucose concentration after eating meals of high GI food and meals of low GI food.



- (a) Complete the table below to give **four** differences between the effects of high GI and low GI foods on blood glucose concentration.

High GI foods	Low GI foods

(4)

- (b) White bread and wholegrain bread contain similar proportions of starch. White bread has a higher GI than wholegrain bread.

Suggest **one** explanation for the difference in GI.

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(2)

(Total 6 marks)

Mark Scheme Carbohydrates

(a)

High GI foods	Low GI foods
1. Rapid rise	Slow rise
2. Higher rise	Lower rise
3. Falls early / quickly	Falls later / slowly
4. Falls below normal	Does not fall below normal

....

1 mark per row

A pair of correct statements is required for each mark. They can be presented in any order

Accept use of figures derived from the graph to illustrate difference, eg marking point 2, High GI foods rise to (about)155 whereas Low GI foods rise only to about 125

NB There is no grid so exact values are not expected

4

(b) **EITHER**

Mark as a pair. Do not mix and match

1. White bread has sugars;

Accept a named example of a sugar

2. (So) less digestion required / sugars rapidly absorbed;

OR

3. Wholegrain bread has more fibre;

4. Fibre slows digestion / reduces absorption / speeds up movement in gut;

OR

5. White bread contains more salt / sodium (ions);

6. (So) more rapid absorption of glucose;

2