1 A student investigated the effect of pH on the action of amylase.

These are the steps the student took:

- collect a sample of salivary amylase
- put a different pH solution and $5cm^3$ of a food substance in each of 6 test tubes
- add $1cm^3$ of salivary amylase to each of the 6 test tubes and record the amylase activity after 10 minutes.

1 (a) (i) Name the substance that amylase breaks down. ……

(1 mark)

pH	7	6	5	4	3	2
Amylase activity in arbitrary units	12	10	3	0	0	0

1 (a) (ii) Suggest what happens to the to the breakdown of this substance when food reaches the stomach.

Use information from the table to help you answer this question.

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(3 marks)

1 (b) In a separate experiment, another student investigated the effect of temperature on the action of amylase.

Before she did the experiment she gave the following hypothesis:

"the higher the temperature the faster the activity of amylase"

The hypothesis was only partially correct. Explain why.

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(2 marks)

(Total 6 marks)