

Homeostasis

- ① Complete the following sentence about homeostasis. (3 marks, ★)

Homeostasis keeps all the conditions of the body
..... whatever the conditions might be.

- ② a Controlling the levels of blood sugar is one example of homeostasis. Name **two** other examples of homeostasis. (2 marks, ★)

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- b Describe how homeostasis controls the blood sugar levels in the body. (5 marks, ★★★★★)

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NAILIT!



You need to include what happens when blood sugar levels are high and when they are low, so make sure you mention insulin *and* glucagon in your answer. Thinking about how diabetics treat 'hypos' and 'hypers' might help you to remember.

- ③ What is the role of the brain in homeostasis? (3 marks, ★★★)

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WORKIT!

Explain why it is important to maintain an internal body temperature of 37°C. (4 marks, ★★★)

Enzymes are needed to carry out reactions in the body. (1)

Enzymes have an optimum temperature of 37°C. (1)

If the temperature is too low, the enzymes will not react quickly enough to maintain life. (1)

If the temperature is too high, the enzymes will denature, and no longer be able to carry out their function. (1)