

AQA, OCR, Edexcel

A Level

A Level Biology

Homeostasis Introduction
Answers

Name:

M M E

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Total Marks: /25

Homeostasis - Introduction

Answer	Marks
<p>1.</p> <p>a)</p> <p>i) So that cells function normally. - So that enzymes can work at an optimum level/ not denatured.</p> <p>ii) – so that water potential across cells is not affected - No loss/gain of water via osmosis</p> <p>iii) Temperature – if too low enzyme activity will slow down - If too high, the enzymes will become denatured - This changes the shape of the active site meaning enzyme activity is reduced pH- if the pH increases or decreases enzymes become denatured</p> <p>iv) Increase in blood glucose levels osmotic potential is affected. - Water potential decreases outside the cell, water moves out, damages cell -Decrease in blood glucose concentration, cells do not have enough glucose to carry out normal cell functions/ produce enough ATP.</p>	<p>2 marks</p> <p>2 marks</p> <p>4 marks</p> <p>3 marks</p>
<p>2.</p> <p>a)</p> <p>i) - sensory neuron, relay neuron - CNS coordinates - Motor neuron - Effector/ muscle or glands.</p>	<p>4 mark</p>

<p>ii) - Corrective brings system back to set point - Detected by receptors - corrective measure turned off</p> <p>iii)</p> <p>iv) Body temperature can be actively increased or decreased depending on the conditions - It allows response to environment.</p>	<p>3 marks</p> <p>2 marks</p>
<p>b) i) - a change in internal environment triggers positive feedback -which amplifies conditions to increase the change</p>	<p>2 marks</p>
<p>c) i) Oxytocin is released to speed up/intensify contractions The intensified/sped up contractions stimulates more oxytocin to be released which in turn increases contractions needed for birth to occur.</p>	<p>2 marks</p>
<p>ii) It does not keep the internal body environment constant.</p>	<p>1 mark</p>