

AQA, OCR, Edexcel

A Level

A Level Biology

Temperature Regulation

Answers

Name:

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Total Marks: /14

Temperature Regulation

Answer	Marks
<p>1.</p> <p>a)i) -Behavioural adaptations - Behaviour/activity level is dependent on the environmental temperature</p> <p>ii) They have a constantly high metabolic rate that generates heat</p> <p>b)</p> <p>i) -sweat is secreted from the sweat glands when the body is too hot - sweat evaporates from the skin surface taking heat energy away from the body</p> <p>ii) <u>Heat Loss Mechanisms:</u> - Hairs lie flat - Vasodilation <u>Heat Production Mechanisms:</u> - Shivering - Hormones <u>Heat Conservation Mechanisms:</u> - Hairs stand up - Vasoconstriction</p> <p>iii) - Body temperature is controlled by the hypothalamus - Thermoreceptors in the hypothalamus detect blood temperature which indicates internal temperature -Thermoreceptors in the hypothalamus monitor skin temperature which indicates external temperature</p>	<p>2 marks</p> <p>1 mark</p> <p>2 marks</p> <p>6 marks</p> <p>3 marks</p>