

Homeostasis and control systems

Q1. (2019)

01.1	homeostasis		1	AO1 4.5.1
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Q2. (2019)

01.2	by hormones		1	AO1 4.5.1
	by nerve impulses		1	4.5.3.1

Q3. (2019)

01.3	any one from: • temperature • (blood) glucose / sugar (concentration)	ignore water allow pH / ions / salts allow oxygen or carbon dioxide	1	AO1 4.5.1
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Q4. (2020)

04.1	controlling water output in urine		1	AO2 4.5.1
	keeping cool on a hot day		1	

Q5. (2023)

05.1	<pre> graph LR Brain[Brain] --- C[Contracts to increase body temperature] C --- A[Changes air temperature outside the body] A --- R[Receptor] R --- I[Coordinates information about body temperature] I --- Brain M[Muscle] --- C </pre>	1	AO1
		1	4.5.1
			1

do **not** accept more than one line from a box on the left

Q6. (2023)

05.2	to allow cells to function properly		1	AO1 4.5.1
	to maintain the optimum conditions for enzymes		1	

Q7. (2023)

A)

05.3	(body) temperature decreases (with increasing time)	ignore decreases unqualified	1	AO2 4.5.1
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B)

05.4	37 – 35.5		1	AO2
	1.5 (°C)	ignore minus sign	1	4.5.1
		ignore decrease		

C)

05.5	suitable extrapolation line on Figure 6		1	AO2
	answer consistent with student's line	if no extrapolation allow value in range 4.3 to 4.8	1	AO3
		allow answer in minutes or hours and minutes if units are given		4.5.1