

Question 06

QUESTION	ANSWERS	EXTRA INFORMATION	MARK	AO / SPEC. REF.
06.1	8		1	AO2/1 4.1.3.1
06.2	suitable scale on y-axis	scale should allow accurate plotting	1	AO2/2 4.1.3.1
	3 points plotted correctly	all three points to be correct for 1 mark	1	AO2/2 4.1.3.1
	correctly drawn line	points should be joined with straight lines	1	AO2/2 4.1.3.1
06.3	as the length of side of the cube increases the surface area to volume ratio decreases	reject references to directly proportional	1	AO3/1a 4.1.3.1
06.4	the smaller the surface area to volume ratio, the longer it takes for the cube to change colour completely	reject references to directly proportional	1	AO3/1a 4.1.3.1
06.5	large surface area to volume ratio so oxygen can reach the centre of cell by diffusion quickly	allow other materials which enter cells instead of oxygen	1	AO3/2b 4.1.3.1
06.6	provide large surface area for gas exchange	accept description of gas exchange	1	AO3/2b 4.1.3.1
06.7	Any three from the following: <ul style="list-style-type: none"> • biconcave disc shape gives • large surface area to volume ratio • small size to travel through capillaries • haemoglobin to carry oxygen • lack of nucleus • (so) more room (for haemoglobin) 	allow description of biconcave disc	3	AO1/1 4.2.2.3
TOTAL			11	