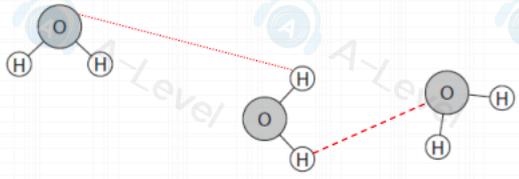


Question Number	Answer	Mark
1(a)(i)	<p>C – myosin only</p> <p>The only correct answer is C</p> <p><i>A is not correct because R identifies a region of myosin only</i></p> <p><i>B is not correct because R identifies a region of myosin only</i></p> <p><i>D is not correct because R identifies a region of myosin only</i></p>	<p>Computer</p> <p>(1)</p>

Question Number	Answer	Mark
1(a)(ii)	<p>A – P and Q</p> <p>The only correct is A</p> <p><i>B is not correct because R does not move when a sarcomere contracts</i></p> <p><i>C is not correct because R does not move when a sarcomere contracts</i></p> <p><i>D is not correct because R and S do not move when a sarcomere contracts</i></p>	<p>Computer</p> <p>(1)</p>

Question number	Answer	Additional guidance	Mark
4(a)(i)	<p>An explanation that includes the following points:</p> <ul style="list-style-type: none"> the oxygen (atom) is slightly negative and the hydrogens (atoms) are slightly positive} (1) {there is (an uneven) charge distribution (across the molecule) / uneven distribution of electrons / the oxygen pulls the electrons towards it} (1) 	<p>Penalise ref to molecules once</p> <p>ACCEPT δ -ve / δ +ve from a diagram</p> <p>ACCEPT comparisons of electronegativity unbalanced charge oxygen has more {protons / more positive nucleus} electrons closer to the oxygen</p>	<p>(2)</p>

Question number	Answer	Additional guidance	Mark
4(a)(ii)	<ul style="list-style-type: none"> a line drawn between an O of one molecule and a H of another molecule (1) 	 <p>If more than one H bond shown then they must be both correct and using different atoms on any one molecule If other water molecules draw then mark if correct</p>	<p>(1)</p>

Question number	Answer	Additional guidance	Mark
4(b)	<ul style="list-style-type: none"> water molecules clustered around the Na^+ with the O facing the Na^+ and the Hs facing away (1) 	<p>NB if charges are shown, they must be correct and partial ACCEPT any number of water molecules but all must be correct DO NOT ACCEPT circles overlapping solid lines joining circles</p> 	(1)

Question number	Answer	Additional guidance	Mark
4(c)	<p>A description that includes four of the following points:</p> <ul style="list-style-type: none"> (A) (increase in temperature can) (linear) increase the solubility (1) (B) (increase in temperature (up to 32°C) can) (exponentially) increase the solubility and then decrease it (1) (C) (increase in temperature can have) a slight increase on the solubility (1) (D) (increase in temperature can) decrease the solubility (1) statement referring to different chemicals have different solubilities at different temperatures (1) 	<p>ACCEPT positive correlation</p> <p>ACCEPT no effect</p> <p>ACCEPT negative correlation</p>	(4)