

Question	Marking Guidance	Mark	Comments
04.1	<p>1. <u>Lower</u> (force of contraction) in mouse/<b>B</b> (than control/100%) below 29 °C</p> <p><b>OR</b></p> <p><u>Lower</u> (force of contraction) in rabbit/<b>D</b> (than control/100%) below 26.5 °C;</p> <p>2. <u>Higher</u> (force of contraction) in mouse/<b>B</b> (than control/100%) above 29 °C</p> <p><b>OR</b></p> <p><u>Higher</u> (force of contraction) in rabbit/<b>D</b> (than control/100%) above 26.5 °C;</p> <p>3. Only (used) mouse <b>and</b> rabbit</p> <p><b>OR</b></p> <p>No other organism/species used;</p> <p>4. Body temperature of mouse/rabbit higher (than temperatures investigated);</p> <p>5. Only used one/0.5 pH (below typical pH)</p> <p><b>OR</b></p> <p>(Should) use more pH values;</p> <p>6. (Used) isolated muscle tissue;</p> <p>7. No stats test to see if (difference is) <u>significant</u>;</p>	4 max	<p>1. Accept any temperature below 29 °C for mouse/<b>B</b> or any specified temperature below 26.5 °C for rabbit/<b>D</b>.</p> <p>2. Accept any temperature above 29 °C for mouse/<b>B</b> or any temperature above 26.5 °C for rabbit/<b>D</b>.</p> <p>1. and 2. Accept 27 °C for 26.5 °C and accept 28.5 °C for 29 °C.</p> <p>3. Accept only two animals/species used.</p> <p>4. Accept body temperature of mouse/rabbit not known</p> <p>7. Ignore SD.</p>
04.2	<p>1. (Less/No) <u>tropomyosin</u> moved from binding site</p> <p><b>OR</b></p> <p>Shape of <u>tropomyosin</u> not changed so binding site not exposed/available;</p> <p>2. (Fewer/No) actinomyosin bridges formed;</p> <p>3. Myosin head does not move</p> <p><b>OR</b></p> <p>Myosin does not pull actin (filaments)</p> <p><b>OR</b></p> <p>(Less/No) <u>ATP (hydroly)ase</u> (activation);</p>	3	<p>1 and 2. Reject active site only once.</p> <p>1. Ignore troponin.</p> <p>2. Accept actin and myosin do not bind.</p> <p>3. Reject ATP synthase.</p> <p>Do not penalise reference to calcium rather than calcium ions.</p> <p>Credit all mark points even if context relates to what happens when calcium ions are present.</p>

<p>04.3</p>	<p>1. Regenerates/produces NAD  <b>OR</b>  oxidises reduced NAD;  2. (So) glycolysis continues;</p>	<p>2</p>	<p>1. Reject NADP and any reference to FAD.  1. Accept descriptions of oxidation e.g. loss of hydrogen.  2. Accept description of glycolysis e.g. glucose to pyruvate.  2. Accept 'for oxidising/converting triose phosphate to pyruvate'.</p>
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