Revision Sheet

IGCSE Biology · Unit 5 Enzymes

6 vocabulary items · 23 marks of exam questions (4 questions)

Part 1 · Vocabulary review answer key. Section A wants the exact English spelling.

Question	Answer	Marks
1	catalyst	1
2	rate	1
3	enzymes	1
4	active site	1
5	substrate	1
6	optimum temperature	1

Multiple Choice Answers

Q7: C

Multiple Choice Answers

Q8: C

<table>
<tr><td>9(a)(i)</td><td>40 (minutes) ;</td></tr>
<tr><td>9(a)(ii)</td><td>idea that 40°C gives the shortest time for stain removal ;</td></tr>
<tr><td>9(a)(iii)</td><td>
<table>
<tr><td>Washing powder B is active over a greater range of temperatures than washing powder A.</td><td></td></tr>
<tr><td>Washing powders A and B do not work at 50 °C.</td><td></td></tr>
<tr><td>Washing powders A and B have the same activity at 37 °C.</td><td>✓ ;</td></tr>
<tr><td>Washing powder A can remove the stain in 15 minutes.</td><td></td></tr>
<tr><td>Washing powder A is more effective at lower temperatures than washing powder B.</td><td>✓ ;</td></tr>
</table>
</td></tr>
<tr><td>9(b)</td><td>pH / AVP ;</td></tr>
<tr><td>9(c)</td><td>(a substance that) increases the rate of a chemical reaction / AW ;
and is not changed permanently by the reaction / not used up in the reaction ;</td></tr>
<tr><td>9(d)</td><td>substrate – V ;
enzyme – Z ;</td></tr>
<tr><td>9(e)</td><td>fat / oil / lipid ; (→) fatty acids ;</td></tr>
</table>

10(a)(i)	Fungus / Fungi ;
10(a)(ii)	aerobic respiration ;
10(b)	*any two from:* ref. to specificity (of enyme) ; shape of active site is complementary to, substrate / sucrose ; for, substrate / sucrose, to bind / fit, enzyme / sucrase / active site ;
10(c)	*total of six from:* *max. four for description:* 1 sucrase / enzyme, is active between pH2 and pH12 ; 2 activity, increases and decreases / reaches a peak ; 3 peak / maximum or 100% activity, at pH 6 ; 4 steeper increase between pH 5–6 / steeper decrease in activity between pH 9–10 ; 5 minimum / 10%, activity at pH 12 ; 6 more activity in, acidic conditions / low pH, than, alkaline conditions / high pH ; *explanation:* 7 (change in) pH affects the shape of, sucrase / active site / enzyme ; 8 at pH 6, most enzyme-substrate complexes form / AW ; 9 at, low / high / extremes of, pH, enzyme is (partially) denatured ; 10 ref to substrate molecules can no longer bind with enzyme (at low / high / extreme pH, so activity decreases) ; 11 AVP ;