

Revision Sheet

IGCSE Biology · Unit 3 Movement into and out of cells

10 vocabulary items · 28 marks of exam questions (6 questions)

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

Question	Answer	Marks
1	diffusion	1
2	particles	1
3	concentration	1
4	molecules	1
5	ions	1
6	solution	1
7	transport	1
8	osmosis	1
9	water potential	1
10	active transport	1

Multiple Choice Answers

Q11: D

Q12: A

Multiple Choice Answers

Q13: B

Multiple Choice Answers

Q14: B

15(a)	<p>breaks down to release energy.</p> <p>dissolves many substances.</p> <p>is a solute.</p> <p>is produced by photosynthesis.</p> <p>is required for digestion.</p> <p>is required for germination.</p> <p>⋮</p>
15(b)(i)	<i>membrane</i> : (dialysis) tubing ; <i>cytoplasm</i> : water ;
15(b)(ii)	arrow starting from water (inside tubing), crossing dialysis tubing and ending in salt solution ;
15(b)(iii)	osmosis ;
15(c)	(cell) wall ;

16(a)(i)	−13.28 (%) ;;;
16(a)(ii)	<p><i>any five from:</i></p> <p>potato (cube) in 0.8 (mol dm^{−3} solution) loses greater (percentage) mass / ora ;</p> <p>movement of water out / loss of water, is cause of mass loss ;</p> <p>water moves from an area of high water potential to an area of low water potential / AW ;</p> <p>water potential of 0.8 (mol dm^{−3} solution) is lower than the water potential of the 0.6 (mol dm^{−3} solution) ;</p> <p>greater / steeper, water potential gradient in 0.8 (mol dm^{−3}) than in 0.6 (mm dm^{−3}) ;</p> <p>(relatively) <u>more water</u> leaves the potato (cube) in 0.8 (mol dm^{−3} solution) ;</p>
16(a)(iii)	<p><i>any two from:</i></p> <p>(cell is) swollen / large(r) / big(ger) / wide(r) / AW ;</p> <p>(cell is) turgid ;</p> <p>vacuole is, swollen / large(r) / big(ger) / wide(r) / AW ;</p> <p>cell wall bulges / AW ;</p> <p>cell membrane / cytoplasm / cell contents, presses on cell wall / AW ;</p>
16(b)	<p><i>any three from:</i></p> <p>uses energy (from respiration / mitochondria) ;</p> <p>(transport / movement is) against a concentration gradient / AW ;</p> <p>involves movement of, sugars / ions / substance(s) other than water / AW ;</p> <p>involves protein <u>carriers</u> ;</p>
16(c)	root hair (cells) ;
16(d)	<p>(leaves are) yellow / (leaves show) chlorosis ;</p> <p>magnesium required for making <u>chlorophyll</u> ;</p>