

Revision Sheet

IGCSE Biology · Unit 6 Plant nutrition

8 vocabulary items · 36 marks of exam questions (5 questions)

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

Question	Answer	Marks
1	light intensity	1
2	limiting factor	1
3	indicator	1
4	mesophyll	1
5	palisade mesophyll	1
6	spongy mesophyll	1
7	air spaces	1
8	stomata	1

Multiple Choice Answers

Q9: A

Q10: B

11(a)(i)	carbon dioxide + water ; → oxygen + glucose ;
11(a)(ii)	light ;
11(b)(i)	letter A and a line drawn that ends on a palisade mesophyll cell ; letter B and a line drawn that ends on the xylem ;
11(b)(ii)	chloroplast ;
11(c)(i)	35 (°C) ;
11(c)(ii)	83.3(%) ;;;

12(a)(i)	A – cuticle ; B – phloem ; C – stoma(ta) ; D – spongy mesophyll (layer) ;
12(a)(ii)	4 ;
12(b)(i)	mineral ions ;
12(b)(ii)	root hair (cell) ;
12(b)(iii)	<i>any three from:</i> by, transpiration / diffusion ; evaporation from surface of (mesophyll) cell ; ref. to water vapour ; through the stomata ;
12(c)(i)	carbon dioxide + water → ; glucose + oxygen ;
12(c)(ii)	light (energy) ;

13(a)	<p><i>any six from:</i></p> <p>LIGHT (B and C as light intensity increases) the rate (of photosynthesis) increases and remains constant / AW ; rates (of photosynthesis) are the same at low(est) light intensities ; light provides <u>energy</u> (for photosynthesis) ; where the line rises / initially, light intensity is, limiting / the limiting factor ; line(s) / rate, levels off where light intensity is not limiting ; in B light intensity becomes limiting at higher light intensity than C / ora ;</p> <p>CARBON DIOXIDE <i>Idea that</i> line C levels off, at a lower rate (of photosynthesis) / lower light intensity ; carbon dioxide (concentration) is, lower for C / 0.04% vs 0.4% ; carbon dioxide is, reactant / substrate / raw material / needed, for photosynthesis ; in C carbon dioxide is a limiting factor at a lower light intensity / in B carbon dioxide is a limiting factor at a higher light intensity ;</p> <p>TEMPERATURE <i>idea that</i> temperature is limiting for B at high light intensities ;</p>
13(b)	O ₂ ;
13(c)	<p><i>any four from:</i></p> <p>(glucose) used, in respiration / to provide energy / to release energy / as an energy store ; (glucose) converted to / stored as, starch ; (glucose) converted to sucrose ; sucrose for, translocation / transport (in the phloem) / sent to sink(s) ; (glucose / fructose / sucrose) in nectar ; (nectar) to attract, insects / pollinators ; (glucose / fructose / sucrose) in fruits (to attract animals) ; (glucose) converted to cellulose ; cellulose to build cell walls ; lignin for cell walls ; used to make, amino acids / fatty acids ; AVP ;</p>