

Revision Sheet

IGCSE Biology · Unit 21 Biotechnology and genetic modification

6 vocabulary items · 32 marks of exam questions (10 questions)

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

Question	Answer	Marks
1	biotechnology	1
2	fermenter	1
3	penicillin	1
4	genetic modification	1
5	protein	1
6	recombinant plasmid	1

Multiple Choice Answers

Q7: B

Q8: C

Multiple Choice Answers

Q9: B

Multiple Choice Answers

Q10: C

Multiple Choice Answers

Q11: C

Q12: B

Multiple Choice Answers

Q13: D

Multiple Choice Answers

Q14: B

15(a)(i)	carbon dioxide ;
15(a)(ii)	respiration ;
15(b)	biofuels / AVP ;
15(c)	make complex molecules ticked ; rapid reproduction rate ticked ;
15(d)	sensitivity ; excretion ; growth ;
15(e)	<i>any two from:</i> cell wall ; cell membrane ; cytoplasm ; ribosomes ; DNA / genetic material ; AVP ;

16(a)	plasmid ; restriction ; sticky ; gene ; (DNA) ligase ; recombinant (plasmid) ; asexual ;
16(b)	<i>any two from:</i> reproduce rapidly ; no ethical / welfare, issues ; ability to make complex molecules ; easy to maintain or store / don't take up too much space ; <i>idea that share a genetic code with other (named) organisms ;</i>

16(c)	<p><i>any three from:</i></p> <ol style="list-style-type: none">1 (additional) nutrient / energy, content may be (too) small ;2 <u>seeds</u> may be expensive to purchase ;3 farmers unable to save seeds ;4 ref. to side effects / (unknown) health risks, to consumers ;5 risk of cross-contamination with wild rice ;6 reduction, in <u>biodiversity</u> / <u>genetic diversity</u> ;7 consumers won't buy GM products / ethical concerns ;8 AVP ;
16(d)	<p><i>scurvy</i> – vitamin C ; <i>rickets</i> – vitamin D / calcium ;</p>