AQA GCSE Science Combined Foundation

Practice answers

Question	Answers	Extra information	Mark	AO / Specification reference
01.1	14		1	AO2 4.7.2.1 MS 2f
01.2	$\frac{96}{8}$ 12		1 1	AO2 4.7.2.1 MS 2f, 2b
01.3	trampled area / shaded area / many other species present / random variation Prevented daisies establishing / growing / competition from other species		1 1	AO3 4.7.2.1
02.1	presence of other plant species		1	AO2 4.7.2.1
02.2	quadrat		1	AO2 4.7.2.1
02.3	D A C E B	1 mark for one correct 2 marks for two correct 3 marks for three correct 4 marks for all correct	4	AO2 4.7.2.1

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03.1	Any **six** from: • Burning / combustion • Converting carbon in fuel into carbon dioxide • Photosynthesis • Converting atmospheric carbon dioxide into carbon compounds in plants • Respiration • Converting carbon from food sources into (atmospheric) carbon dioxide • Feeding • Carbon passed from organism to organism • decay / decomposition of dead organisms • releases carbon dioxide into the atmosphere.	Allow six marks for an appropriately labelled diagram	6	AO1 4.7.2.2
03.2	Increased rate of combustion (of fossil fuels) Increases atmospheric CO_2 concentration Deforestation Reduces rate of CO_2 removal from atmosphere		1 1 1 1	AO1 4.7.2.2
04.1	grass		1	AO2 4.7.2.1
04.2	sparrow / hawk		1	AO2 4.7.2.1

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04.3	slug / sparrow		1	AO2 4.7.2.1
04.4	hawk		1	AO2 4.7.2.1
05.1	dies leaves droppings decomposers nutrients		1 1 1 1 1	AO1 4.7.2.2
05.2	microorganisms		1	AO1 4.7.2.2
05.3	make nutrients available for other organisms prevent build-up of dead organisms		1 1	AO1 4.7.2.2
05.4	carbon / nitrogen		1	AO1 4.7.2.2
06.1	Aquatic plant		1	AO2 4.7.2.1
06.2	Seal		1	AO2 4.7.2.1

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06.3	Light / sun		1	AO1 4.7.2.1
06.4	Crab / octopus		1	AO2 4.7.2.1
06.5	Any **one** from: • Camouflage – so organism is harder to be seen • Named defence mechanism, e.g. warning colouration – to mimic poisonous plants • Hard shell (crab) – more difficult to catch	Allow 1 mark for a sensible adaptation and 1 mark for linked explanation	2	AO2 4.7.2.1 4.7.1.4
06.6	Fewer seals / no seal to eat the octopuses so octopus population would increase so number of crabs would go down / more crabs would be eaten		1 1 1	AO3 4.7.2.1
07.1	evaporation – water changes from a liquid into a gas condensation – water changes from a gas into a liquid precipitation – water falling from the atmosphere to the Earth transpiration – loss of water vapour from plants	1 mark for one correct 2 marks for two correct 3 marks for all correct	3	AO1 4.7.2.2
07.2	Sun		1	AO1 4.7.2.2

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07.3	For photosynthesis / to support plant cells / as a habitat / to sustain source of food		1	AO1 4.7.2.2
08.1	1933		1	AO2 4.7.2.1 Ms4a
08.2	56 000	Accept 55 000-58 000	1	AO2 4.7.2.1 Ms4a
08.3	3 2 1	1 mark for one correct 2 marks for all correct	2	AO2 4.7.2.1
08.4	hares – (drop for a couple of years) then start to rise again lynx – (Rise then) fall		1 1	AO3 4.7.2.1
09.1	A – death B – feeding / consuming C – respiration		1 1 1	AO2 4.7.2.2
09.2	Carbon dioxide + water → glucose + oxygen		1	AO1 4.7.2.2 4.4.1.1
09.3	oceans / lakes / rivers / rocks		1	AO1 4.7.2.2

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09.4	Any **two** from: • break down dead organisms / organic matter • releasing carbon dioxide into the atmosphere as microorganisms respire • prevent build-up of dead bodies		2	AO1 4.7.2.2
10.1	Provides a constant supply of water for animals to survive		1	AO1 4.7.2.2
10.2	Photosynthesis		1	AO1 4.7.2.2
10.3	Any **two** from: • carbon dioxide levels – needed for photosynthesis • light intensity – needed for photosynthesis • soil pH – optimum pH needed for healthy roots • soil mineral content – need sufficient minerals in the soil for plant growth • temperature – plant enzymes for photosynthesis work at optimum temperatures	1 mark for abiotic factor 1 mark for linked explanation Accept any other sensible suggestions	4	AO1 4.7.1.1
10.4	Clockwise from top right: Precipitation Transpiration Evaporation Condensation		 1 1 1 1	AO1 4.7.2.2

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11.1	Eye colour – inherited from parents Tattoo – not inherited from parents Measles infection – not inherited from parents		1 1 1	AO1 4.6.2.1
11.2	Any **four** from: • You get half your genetic material from either parent • Passed on through gametes / egg and sperm • Join together during fertilisation • Combination of genes / genetic material a child inherits depends on which gametes join • Each sibling has a different combination of genes / genetic material		4	AO1 4.6.2.1
11.3	A change in the order of DNA bases/DNA		1	AO1 4.6.2.1
11.4	Advantage – disease resistance / pest resistance / antibiotic resistance / accept other appropriate suggestion Disadvantage – disease / cancer / accept other appropriate suggestion		1 1	AO3 4.6.2.1