

Question	Answers	Extra information	Mark	AO / Specification reference
01.1	millions		1	AO1 4.6.2.2
01.2	F D C A B E	1 mark for one correct 2 marks for two correct 3 marks for three correct 4 marks for all correct	4	AO1 4.6.2.2
01.3	when organisms can interbreed to produce fertile offspring		1	AO1 4.6.2.2
02.1	evolved millions selection survive genes		1 1 1 1 1	AO1 4.6.2.2
02.2	Darwin		1	AO1 4.6.3.4
02.3	remains of an organism / preserved trace of an organism from millions of years ago		1 1	AO1 4.6.3.5
02.4	any one from: antibiotic resistant bacteria characteristics are passed on in genes organisms have become extinct		1	AO1 4.6.3.5

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03.1	no individuals of a species found anywhere in the world		1	AO1 4.6.3.6
03.2	<p>outbreak of a new disease – organisms of a species are all killed by microorganisms</p> <p>prolonged drought – lack of water leads to organisms' death</p> <p>introduction of new competitors – lack of food causing starvation</p> <p>deforestation – loss of shelter leads to death of organisms</p>	<p>1 mark for one correct</p> <p>2 marks for two or three correct</p> <p>3 marks for all correct</p>	3	AO2 4.6.3.6
03.3	<p>any one from:</p> <p>captive breeding</p> <p>gene banks</p> <p>protecting habitats</p>		1	AO3 4.6.3.6
04.1	<p>any three from:</p> <p>parts of organisms such as bones that have not decayed / preserved in amber / resin</p> <p>conditions needed for decay are absent</p> <p>accept appropriate examples, e.g. acidic bogs / lack of oxygen</p> <p>parts of the organism are replaced by other materials as they decay / mineralised</p> <p>preserved traces of organisms / footprints / burrows and rootlet traces</p>		3	AO1 4.6.3.5

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04.2	not all fossils have been found yet not all parts of organisms become fossils some fossils have been destroyed in the rock cycle		1 1 1	AO1 4.6.3.5
04.3	any one from: Darwin challenged the idea that all organisms were created by God No absolute evidence for evolution No understanding of genes / mechanism of inheritance		1	AO1 4.6.3.1
04.4	antibiotic resistance in bacteria / other named example of evolution by natural selection / extinction		1	AO1 4.6.3.1 4.6.3.4
05.1	C E A B D	1 mark for one correct 2 marks for two correct 3 marks for three or four correct 4 marks for all correct		AO1 4.6.3.7
05.2	2006		1	AO2 4.6.3.7 Ms4a
05.3	any two from: male and female deaths rose (steadily) between 1994 and		2	AO3

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	2006 the peak in deaths occurred in 2006 both male and female deaths have decreased after 2006 male deaths due to MRSA have been higher than in females for the period 1994–2010			4.6.3.7 Ms4a
05.4	any one from: doctors should not prescribe antibiotics for minor bacterial infections / viral infections patients should complete a course of antibiotics in full restrict use of antibiotics in agriculture doctors / nurses should wash hands between each patient appointment hospitals should ensure good hygiene practices are followed	accept any other appropriate suggestions	1	AO1 4.6.3.7
06.1	organisms that can interbreed to produce fertile offspring		1	AO1 4.6.2.2
06.2	chimpanzees		1	AO2 4.6.4
06.3	variation survive genes phenotype		1 1 1 1	AO1 4.6.2.2

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07.1	animals fungi		1 1	AO1 4.6.4
07.2	phylum class order family genus	1 mark for one correct 2 marks for two correct 3 marks for three or four correct 4 marks for all correct	4	AO1 4.6.4
07.3	organisms which can interbreed to form fertile offspring		1	AO1 4.6.4
08.1	changes in a species over time		1	AO1 4.6.2.2
08.2	foot print – preserved trace of an organism ammonite – parts of the organism were replaced by minerals as they decayed insect in amber – parts of the organism did not decay as conditions for decay were absent		2	AO2 4.6.3.5
08.3	any one from: fossils destroyed by geological activity some / many fossils have not been found soft bodied organisms leave few traces / are difficult to fossilise	accept any correct reason	1	AO1 4.6.3.5

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09.1	Linnaeus		1	AO1 4.6.4
09.2	species – <i>tigris</i> genus – <i>Panthera</i> kingdom – animal	1 mark for one or two correct 2 marks for all correct	2	AO2 4.6.4
09.3	more powerful microscopes / DNA studies / studies of biochemical processes / detailed chemical analysis		1	AO1 4.6.4
09.4	primitive bacteria – archaea true bacteria – bacteria plants – eukaryota	1 mark for one or two correct 2 marks for all correct	2	AO2
10.1	no organisms of the species are alive anywhere in the world		1	AO1 4.6.4
10.2	<i>Agilisaurus</i>		1	AO2 4.6.4
10.3	newer specie are heavier than the organisms they evolved from		1	AO2 4.6.4
10.4	50 million years		1	AO2 4.6.4