

Evolution MS

QUESTION 1

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	wing pattern similar to Amauris birds assume it will have foul taste		1 1
b)	mutation / variation produced wing pattern similar to Amauris these butterflies survived breed / genes passed to next generation	do not accept breeds with Amauris do not accept idea of intentional adaptation	1 1 1
Total marks			5

QUESTION 2

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	any four from: ☒ mutation / variation ☒ produces smaller wings / fatter body ☒ wings no longer an advantage since no predators ☒ wings no longer an advantage since food on ground ☒ fatter body can store more energy when fruit scarce ☒ successful birds breed / pass on genes	must be linked to mutation / variation allow wings / flight not needed as no predators allow wings / flight not needed as food on ground	4
b)	any one from: ☒ evidence has all gone ☒ no scientists on island at time to record evidence ☒ no records (from sailors)		1
Total marks			5

QUESTION 3

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)i)	natural selection		1
a)ii)	Darwin		1
a)iii)	simple life forms		1
b)	believe that God created all organisms or humans there from the beginning		1
Total marks			4

QUESTION 4

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)	any two from <ul style="list-style-type: none">•survival of fittest•amplification of fittest ie has adaptations to survive• go on to breed or genes / characteristics passed on to next generation	allow examples allow examples NB best adapted organisms survive gains 2 marks	2
b)	any two from eg: <ul style="list-style-type: none">•increased height•increased erectness•shorter arms•legs straighter•larger skull•larger pelvis or changing shape described• humans walk on two legs / feet	ignore unqualified change eg 'the skull changes shape' allow description of modern human characteristic eg 'modern humans stand up straight' allow description of ape-like characteristics eg ape-like ancestor walked on four legs	2
c)	any two from: <ul style="list-style-type: none">•religious objections•insufficient evidence• mechanism of heredity not known did not know about genes /chromosomes / DNA / mutations• did not like the thought of being descended from apes	ignore no evidence accept could not prove	2
d)	Darwin's theory depends on differences in genes at birth / inborn variation / mutation	allow Darwin's theory depends on genetics ignore reference to time	1
Total marks			7

QUESTION 5

QUESTION	ANSWER	EXTRA INFORMATION	MARKS
a)i)	3		1
a)ii)	Q		1
a)iii)	1		1
b)	from fossils / bones	allow artefacts / named artefacts / drawings / evidence of fires	1
b)ii)	Darwin		1
Total marks			5