

FOUNDATION AND HIGHER TIER

Question	Answer	Mark											
7/1.(a)	7 Two marks for correct answer; One mark for working if incorrect answer (100 – 93)	2											
(b)	<table border="0" style="width: 100%;"> <tr> <td style="width: 60%;">Meat, fish, eggs</td> <td style="width: 5%; text-align: center;">✓</td> <td rowspan="5" style="font-size: 4em; vertical-align: middle;">}</td> </tr> <tr> <td>Fruit and vegetables</td> <td></td> </tr> <tr> <td>Bread, rice, potatoes, pasta</td> <td></td> </tr> <tr> <td>Milk and dairy foods</td> <td style="text-align: center;">✓</td> </tr> <tr> <td>Foods and drinks high in fat and/or sugar</td> <td style="text-align: center;">✓</td> </tr> </table>	Meat, fish, eggs	✓	}	Fruit and vegetables		Bread, rice, potatoes, pasta		Milk and dairy foods	✓	Foods and drinks high in fat and/or sugar	✓	
Meat, fish, eggs	✓	}											
Fruit and vegetables													
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Milk and dairy foods	✓												
Foods and drinks high in fat and/or sugar	✓												
	All three boxes required;	1											
(c)	16.5;	1											
(d)	reference to comparison; NOT fair testing	1											
(e)	<p>Any two from:</p> <p>Overweight/fat/obese/ put on too much weight</p> <p>NOT put on weight</p> <p>mobility problem;</p> <p>joint damage;</p> <p>heart disease/ heart attack NOT heart problems/ damage</p> <p>cholesterol/circulatory disease/stroke/ clogging</p> <p>diabetes;</p> <p>infertility;</p>	2											
(f)	energy (store)/membranes/nerves/ insulation NOT keeping warm	1											
Total for the Question		8											

Question	Answer	Mark
8/2	Indicative content as blood glucose rises (more) insulin released; ref to pancreas; to the liver; in the blood; glucose changed to glycogen; insoluble/stored; ignore references to glucagon	

Question	Answer	Mark
8.	QWC Marking	
	Indicative content:	
	5 - 6 marks	The candidate constructs an articulate, integrated account correctly linking relevant points, such as those in the indicative content, which shows sequential reasoning. The answer fully addresses the question with no irrelevant inclusions or significant omissions. The candidate uses appropriate scientific terminology and accurate spelling, punctuation and grammar.
	3 - 4 marks	The candidate constructs an account correctly linking some relevant points, such as those in the indicative content, showing some reasoning. The answer addresses the question with some omissions. The candidate uses mainly appropriate scientific terminology and some accurate spelling, punctuation and grammar.
	1-2 marks	The candidate makes some relevant points, such as those in the indicative content, showing limited reasoning. The answer addresses the question with significant omissions. The candidate uses limited scientific terminology and inaccuracies in spelling, punctuation and grammar.
	0 marks	The candidate does not make any attempt or give a relevant answer worthy of credit.

Question	Answer	Mark
9/3 (a) (i)	increased (allow slower) reaction time/impaired judgement/ lose concentration/ adverse effect on nervous system NOT car crash/ reduces reaction time/ slows nerve impulses	1
(ii)	effect starts even at low alcohol level NOT stops any chance of alcohol affecting the driver/ some People are more affected than others	1
(b)	dependency idea/ craves/ hard to give up/ can't live without it/ keep wanting more NOT hooked withdrawal symptoms idea/ cold turkey	2
Total for the Question		4
10/4 (a)	21.3; one mark for working (710 x 0.03) or two marks for correct answer if no working	2
(b)	Any two from food; NOT named food e.g. nuts water; space/ area NOT land habitat/ places to live NOT homes/ shelter	2
(c)	Any two from disease; predation; adverse weather, cold, drought/ global warming NOT weather/ climate pollution; 'management'/hunting/ culling/ poisoning/ shooting Not able to find a mate	2
Total for the Question		6

HIGHER TIER

Question	Answer	Mark
5. (a) (i)	7.5	1
(ii)	4.5 / 4 ½ ;	1
(b) (i)	<p>either:</p> <p>any two from</p> <p>receptor/sensory cells;</p> <p>impulses/ electrical signals NOT message/ electric signal</p> <p>along sensory neurones/nerves;</p> <p>or:</p> <p>in the blood;</p> <p>in the form of heat;</p>	2
(ii)	<p>Any two from</p> <p>Vasodilation/ dilate/increase in width/ diameter/ get wider</p> <p>NOT bigger/ expand/ thicker/ nearer to surface</p> <p>more blood;</p> <p>radiation/conduction;</p>	2
Total for the Question		6

Question	Answer	Mark
6. (a)	(Genetic) profile/genetic code/ profiling NOT fingerprinting	1
(b)	Captive tortoises would have all the same patterns NOT similar (Ref to 'It' = wild population of tortoise) Wild populations would all be different to captive tortoises	1 1
Total for the question		3
7. (a) (i)	Photosynthesis	1
(ii)	0.5 no unit needed	1
(b)	5120kJ Unit must be unambiguous	1
(c)	Herbivores are more active/ move more or converse/ higher metabolic rate NOT herbivores excrete	1
(d)	Decay/decomposition/ bacteria break down NOT it breaks down urea to ammonia ammonia to nitrates which are taken up by plants and used to make <u>protein</u>	1 1 1 1
Total for the Question		8

Question	Answer	Mark
8.	<p>Indicative content:</p> <p>Few predators/no virus/other answers relating to availability of food/space/suitable climate.</p> <p>Mutation</p> <p>caused resistance/ immunity</p> <p>caused variation</p> <p>which was an advantage/had survival value</p> <p>allowed survival of the fittest <u>TO BREED</u></p> <p>(Mutated) GENE passed on</p>	
	Total for the Question	6

QWC Marking

Question	Answer	Mark
8.	Indicative content:	
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	0 marks	The candidate does not make any attempt or give a relevant answer worthy of credit.

Question	Answer	Mark									
9. (a) (i)	Continuous: bell-shaped bar profile NOT continuous line	1									
	Discontinuous: Two bars or more – different heights	1									
(ii)	Continuous										
(b) (i)	<table style="margin-left: 40px;"> <tr> <td></td> <td>B</td> <td>b</td> </tr> <tr> <td>B</td> <td>BB</td> <td>Bb</td> </tr> <tr> <td>b</td> <td>bB</td> <td>bb</td> </tr> </table> <p>Gametes</p>		B	b	B	BB	Bb	b	bB	bb	1
	B	b									
B	BB	Bb									
b	bB	bb									
	Cross	1									
(ii)	Shows discontinuous variation	1									
	Plain is dominant/banded recessive	1									
	NOT plain is more/ most dominant										
	Total for the Question	7									

Question	Answer	Mark
10. (a) (i)	By microorganisms / bacteria/ microbes/ fungi	1
	as a result of respiration NOT respire/ breathe	1
(b) (i)	Lead killed bacteria/fungi/decomposers OR denatured enzymes/ lead stops bacteria respiring/ working	1
	No carbon dioxide produced	1
(ii)	To show lead was responsible (and not nitrate)/to show nitrate was not responsible (but lead was) (not: as a control)	1
(iii)	sterilised soil/ disinfected soil/ use boiled soil/ use soil with dead microbes NOT soil with no micro-organisms(same volume of reagents as tube A or C)	
Total for the Question		6



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