

Environmental and Land Science

General Certificate of Secondary Education

Unit **B494/02**: Care of Small Animals (Higher Tier)

Mark Scheme for January 2012

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.

All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

OCR will not enter into any discussion or correspondence in connection with this mark scheme.

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Annotations

Used in the detailed Mark Scheme:

Annotation	Meaning
/	alternative and acceptable answers for the same marking point
(1)	separates marking points
not/reject	answers which are not worthy of credit
ignore	statements which are irrelevant - applies to neutral answers
allow/accept	answers that can be accepted
(words)	words which are not essential to gain credit
words	underlined words must be present in answer to score a mark
ecf	error carried forward
AW/owtte	alternative wording
ORA	or reverse argument

Available in scoris to annotate scripts

	indicate uncertainty or ambiguity
	benefit of doubt
	contradiction
	incorrect response
	error carried forward
	draw attention to particular part of candidate's response
	draw attention to particular part of candidate's response
	draw attention to particular part of candidate's response
	no benefit of doubt

	reject
	correct response
	draw attention to particular part of candidate's response
	information omitted

Subject-specific Marking Instructions

- If a candidate alters his/her response, examiners should accept the alteration.
- Crossed out answers should be considered only if no other response has been made. When marking crossed out responses, accept correct answers which are clear and unambiguous.

E.g.

For a one mark question, where ticks in boxes 3 and 4 are required for the mark

Put ticks (✓) in the two correct boxes.

<input type="checkbox"/>
<input type="checkbox"/>
<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input type="checkbox"/>

This would be worth 1 mark.

Put ticks (✓) in the two correct boxes.

<input type="checkbox"/>
<input type="checkbox"/>
<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input type="checkbox"/>

This would be worth 0 marks.

Put ticks (✓) in the two correct boxes.

<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input type="checkbox"/>

This would be worth 1 mark.

c. The list principle:
 If a list of responses greater than the number requested is given, work through the list from the beginning. Award one mark for each correct response, ignore any neutral response, and deduct one mark for any incorrect response, e.g. one which has an error of science. If the number of incorrect responses is equal to or greater than the number of correct responses, no marks are awarded. A neutral response is correct but irrelevant to the question.

d. Marking method for tick boxes:

Always check the additional guidance.

If there is a set of boxes, some of which should be ticked and others left empty, then judge the entire set of boxes.

If there is at least one tick, ignore crosses. If there are no ticks, accept clear, unambiguous indications, e.g. shading or crosses.

Credit should be given for each box correctly ticked. If more boxes are ticked than there are correct answers, then deduct one mark for each additional tick. Candidates cannot score less than zero marks.

E.g. If a question requires candidates to identify a city in England, then in the boxes

Edinburgh	
Manchester	
Paris	
Southampton	

the second and fourth boxes should have ticks (or other clear indication of choice) and the first and third should be blank (or have indication of choice crossed out).

Edinburgh			✓			✓	✓	✓	✓	
Manchester	✓	✗	✓	✓	✓				✓	
Paris				✓	✓		✓	✓	✓	
Southampton	✓	✗		✓		✓	✓		✓	
Score:	2	2	1	1	1	1	0	0	0	NR

MARK SCHEME:

Question		CBT Question Numbers	Answer	Mark	Guidance
1		1	D - tetanus	1	
2		2	B - high in protein content, high water content	1	
3		3	A - air holes in the lid	1	
4		4	B - 20 °C to 25 °C	1	
5		5	A - courtship stimulates mating; D - males have a penis; F - fertilisation is internal	2	any 2
6		6	B - night blindness	1	
7		7	B - a growth fault (injury) curved toe D - selective breeding long leg A - a genetic mutation (inbreeding) extra toe C - a parasitic mite crusty scales	3	4 correct = 3 marks 3 correct = 2 marks 2 correct = 1 mark
8		8	hounds eg beagle / fox hound / deer hound terriers eg Jack Russell OWTTE	1	2 correct = 1 mark reject retrievers / gun dogs hound and terrier without qualification
9		9	takes food in / ingestion / drinks / swallows ; breaks up food / chews / grinds; mixes in saliva; starts digestion/ digests starch	3	allow store food /tasting or sampling food reject biting, unless describing taking in food eating any non feeding activity eg breathing
10	(a)	10	weight / vaccinations / diseases (health) / prizes at show / offspring / distinguishing features / mating /breeding line	2	4 = 2 marks 3/2 = 1 mark
	(b)	11	easier to update / more adaptable/easier to search/send to others	1	reject safer; easier to access unless qualified

Question		CBT Question Numbers	Answer	Mark	Guidance
11		12	need to get more nutrition out of the food; fibre digested by bacteria in caecum release protein / nitrates; these not absorbed / would be wasted, unless re-eaten	2	
12		13	lack of calcium in diet	1	allow last of a clutch / stress / passes through oviduct too quickly
13	(a)	14	animal cannot move	1	
	(b)	14	replace with digital / scale with greater number of divisions and use repeat / or average weighing	1	
14	(a)	15	tests on mice steadily rise; tests on rats have slowly declined; tests on fish have slowly increased	1	trend needs to be qualified eg steady / slow
	(b)	15	rats have dropped, fish increase	1	
15	(a)	16	cat and mouse	1	
	(b)	17	B - 0.20%	1	
16		18	pie chart; suitable for discontinuous variation; ORA	2	histogram / graph show continuous time on x axis
17		19	wrong diet OWTTE; lack of exercise; genetic; medical condition / stress / injury	3	reject pregnant allow illness
18		20	animals breathe out water / give off heat; so increase humidity and temperature; ideal conditions for breeding of micro-organisms; without air flow infections build up; increased risk of transmission between birds	3	any 3
19		21	inbreeding - mating close relations / brother to sister, father to daughter; line breeding - mating of related animals not close / cousins	2	
Total				36	

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