

Additional Applied Science A

General Certificate of Secondary Education

Unit **A324/01**: Life Care

Mark Scheme for January 2013

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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

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
Annotation	Meaning
	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

Annotation	Meaning
	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.

Eg

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, eg 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, eg 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.

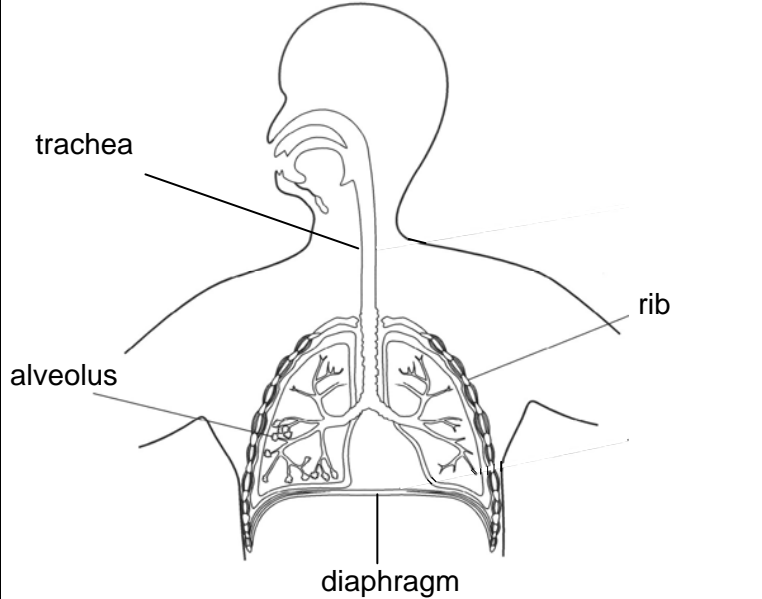
Eg If a question requires candidates to identify a city in England, then in the boxes

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	✓	x	✓	✓	✓				✓	
Paris				✓	✓		✓	✓	✓	
Southampton	✓	x		✓		✓	✓		✓	
Score:	2	2	1	1	1	1	0	0	0	NR

Question		Answer	Marks	Guidance
1	(a)	B (given) A E D	3	
	(b)	any three from smoking habit (1) fitness / amount of exercise taken (1) alcohol consumption (1) personal medical history / treatment/previous injuries (1) current medication (1) diet (1)	3	ignore things which are measured eg weight, mass, height, BMI, age ignore employment issues check all options consistent with lifestyle not just medical history
		Total	6	

Question	Answer	Marks	Guidance
2 (a)		4	
(b)	<p>any two pairs from large surface area (1) allows more gas exchange to occur at any one time (1) thin walls (1) short diffusion distance for gases (1) moist walls (1) gases dissolve / speeds up diffusion (1) good blood supply (1) maintains concentration gradient (1) owtte</p>	4	

Question		Answer	Marks	Guidance
	(c) (i)	there are a number of different treatments available and some may be more effective for him than others	1	
	(ii)	asthma is incurable (1) medication is treating the symptoms (1)	2	
	(d)	8% (2)	2	allow one mark for correct substitution <u>5,000,000</u> 62,000,000
Total			13	

Question		Answer	Marks	Guidance
3	(a)	any one of need to get information about Rachel, medication / countries been travelling in / allergies (1) Rachel unconscious so friend will have to answer questions for her as cannot herself (1) the friend can reassure Rachel if she regains consciousness (1)	1	
	(b)	she is unconscious / more seriously injured / condition could be life threatening	1	allow reference to triage
	(c)	B, C, F, E, D (A given)	3	all correct for three marks B at beginning AND D at end = 1 mark F before E = 1 mark C before F = 1 mark

Question		Answer	Marks	Guidance
	(d) (i)	correctly named chemical (1) eg nitrite medical condition which it shows (1) eg bacterial infection	2	allow any sensible pairing for two marks allow one mark for a correctly named chemical or condition if given singly or unmatched not glucose and diabetes as given in the question
	(ii)	advantage quick / easy / reliable (1) disadvantage not quantitative / colours do not always match (1)	2	
Total			9	

Question		Answer	Marks	Guidance
4	(a)	to treat skeletal muscular injuries owtte	1	
	(b)	assess at start of exercise programme (1) repeat and compare (1)	2	looking for the idea that something has to be assessed and then repeated at intervals throughout the programme to see if there is any progress, rather than a detailed account of a suitable exercise programme
	(c)	any two from progress better than expected (1) further injury (1) not having the desired effect / progress slower than expected (1)	2	
Total			5	

Question	Answer	Marks	Guidance
5	<p>to advertise new drugs <input type="checkbox"/></p> <p>to plan suitable healthcare <input checked="" type="checkbox"/></p> <p>to make health care available <input checked="" type="checkbox"/></p> <p>to provide specialist... <input checked="" type="checkbox"/></p> <p>to promote pregnancy <input type="checkbox"/></p> <p>to test out new medicines <input type="checkbox"/></p>	3	
	Total	3	
	Paper Total	36	

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