

Additional Applied Science A

General Certificate of Secondary Education

Unit **A324/01**: Life Care

Mark Scheme for June 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.

✗
✗

This would be worth 1 mark.

Put ticks (✓) in the two correct boxes.

✓
✗

This would be worth 0 marks.

Put ticks (✓) in the two correct boxes.

✗
✗
✓
✓

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

Question		Answer	Mark	Guidance
1	(a)	<p>they stop you from smoking <input type="checkbox"/></p> <p>they plan exercise programmes <input checked="" type="checkbox"/></p> <p>they have a range of exercise equip <input checked="" type="checkbox"/></p> <p>they always make you healthier <input type="checkbox"/></p> <p>they run exercise classes <input checked="" type="checkbox"/></p>	2	3 correct: 2 marks 1 or 2 correct: 1 mark
	(b)	(i) medication; (1) treatments / conditions (1)	2	allow reference to <u>family</u> medical history (1)
		(ii) any two of: alcohol consumption (1) tobacco consumption (1) general level of physical activity (1)	2	Ignore "drink" unless specifically concerning alcohol allow healthy/balanced diet
2	(a)	(i) ringed or otherwise indicated: red blood cell (1) white blood cell (1) platelets (1)	3	If more than 3 ringed deduct 1 mark for each extra one
		(ii) 75 x 60 (1) 4500 (1)	2	allow 4500 for 2 marks
	(b)	any two of protection; (1) support; (1) attachment of muscles / movement; (1) makes red blood cells (1)	2	ignore gives structure, keeps upright etc allow stores minerals (1)

Question		Answer	Mark	Guidance
3	(a)	1. trachea 2. intercostal muscle 3. diaphragm 4. alveoli	4	
	(b)	(i) any two of: large surface area; (1) lots of them; (1) thin walls; (1) moist walls; (1) good blood supply (1)	2	ignore stretching
		(ii) any two of: reduces gas exchange / uptake of oxygen; (1) reduces surface area (for exchange of gases); (1) increases diffusion distance; (1) difficult to breathe / quickly out of breath; (1) blocks the alveoli; (1) coughing; (1) leads to lung infections (1)	2	allow cannot do their job
	(c)	asthma (1)	1	allow any suggestion they are likely to have come across such as diabetes or any type of genetic disorder such as red/green colour blindness allow <u>named</u> cancer
4	(a)	(i) any two of: treat most serious first; (1) unconscious / head injury; (1) could be life threatening (1)	2	allow examples as an indication of ranking e.g. an unconscious person before a twisted ankle allow reference to triage (2)
		(ii) any two of: to provide reassurance when she comes round (owtte); (1) to explain how / when Maureen received her injuries; (1) to give information eg name / contact details / allergies (1)	2	

Question		Answer	Mark	Guidance
	(b) (i)	doesn't involve an operation / surgery / cutting	1	owtte
	(ii)	X-ray (1)	1	allow any type of named scan such as MRI, ultrasound, but not scan alone
	(iii)	any two of: (provide structural information) without need for surgery / cutting; (1) quicker recovery time (than surgery); (1) reduces risk of infection (if no surgery) (1)	2	allow quicker procedure ignore any arguments about costs ignore easier, safer, cosmetic issues
5	(a)	some form of (leg) exercise; (1) idea of repeating it / gradually increasing the intensity (1)	2	looking for an example students will be familiar with from their case studies
	(b)	any two of: measure fitness / step test / bleep test / other example; (1) repeat measurement (after a period of time); (1) record / compare the performance; (1) (by) physiotherapist / fitness trainer / fitness instructor / coach / personal trainer etc (1)	2	
	(c)	any two of: progress may not be rapid enough / too hard / not working / may not be improving; (1) progress may be faster than expected / too easy; (1) illness and injury may have happened (1)	2	not programme is causing injury not programme is not suitable
Paper Total			36	

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