

Additional Applied Science A

General Certificate of Secondary Education

Unit **A324/01**: Life Care

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.

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

MARK SCHEME:

Question		Answer	Mark	Guidance
1	(a)	<p>all treatments make you better <input type="checkbox"/></p> <p>all treatments carry some risk <input checked="" type="checkbox"/></p> <p>a number of different treatments <input checked="" type="checkbox"/></p> <p>all treatments cure the problem <input type="checkbox"/></p> <p>a treatment may have some side <input checked="" type="checkbox"/></p> <p>Some treatments are more expensive <input type="checkbox"/></p>	3	<p>all correct = 3 marks</p> <p>2 correct = 2 marks</p> <p>1 correct = 1 mark</p>
	(b)	<p>their injuries are assessed (1)</p> <p>most serious / life threatening first (1)</p>	2	<p>allow triage (2)</p> <p>allow reverse argument</p> <p>allow relevant examples as a comparison to demonstrate order of priority eg unconscious before broken limb (1)</p>
2	(a)	<p>any three of:</p> <p>measure fitness (1)</p> <p>step test/ bleep test/ or other example (1)</p> <p>(repeat measurement) after a period of time (1)</p> <p>compare the performance (1)</p> <p>keeping records/log (1)</p>	3	<p>looking for some kind of test and the idea that is repeated over a period of time to allow comparison of performance to give a measure of progress</p>
	(b)	<p>any two of:</p> <p>progress may not be rapid enough (1)</p> <p>progress may be faster than expected (1)</p> <p>further injury may have happened (1)</p>	2	<p>allow illness (1)</p> <p>allow programme not working / too hard / too easy (1)</p>

Question		Answer	Mark	Guidance
3	(a)	Ralph's skin capillaries carry less blood <input type="checkbox"/> Ralph's temp receptors are <input checked="" type="checkbox"/> Ralph's skin capillaries carry more blood <input checked="" type="checkbox"/> Ralph's sweat glands produce <input checked="" type="checkbox"/> Ralph's fat layer gets thinner <input type="checkbox"/> Ralph's skin capillaries move closer <input type="checkbox"/>	3	all correct = 3 marks 2 correct = 2 marks 1 correct = 1 mark
	(b)	any two of: raises awareness (1) reduces incidence of health issues (eg skin cancer) (1) less waste of public resources owtte (1)	2	allow increased understanding of a health issue
4	(a)	(left) atrium (1) (left) ventricle (1)	2	penalise "right" only once allow : auricle
	(b)	ECG (1)	1	
	(c)	salt (1) saturated fat (1)	2	
	(d)	suitable name (1) appropriate role (1) suitable name (1) appropriate role (1)	4	reject dietician but any suitable health care worker and a description of their role such as GP diagnose illness reject fitness trainer

Question		Answer	Mark	Guidance
5	(a)	from 1997 onwards the % of obese women has increased (1)	1	allow : comparison with men eg women more obese than men
	(b) (i)	$\frac{124}{2^2}$ (1) 31 (1)	2	allow 1 mark for correct substitution allow 2 marks for correct answer
	(ii)	obese (1)	1	allow ecf1 mark
	(c)	any three of: do you smoke (1) do you drink <u>alcohol</u> (1) do you take any drugs (1) do you do any regular exercise (1)	3	allow reference to a balanced diet / five a day ignore reference to medication / health issues
6	(a)	any three from: womb/uterus is getting larger (1) periods have stopped (1) ovulation has stopped (1) breasts getting larger (1)	3	allow nipples darken, hands/feet swell, gain in weight allow cervix enlarges ignore foetal development & tissues ignore hormones, sickness, bladder / urination problems reject getting fatter, stomach / belly gets larger
	(b) (i)	3.2 ± 0.1 kg (1)	1	
	(ii)	to reduce the risk of a baby with a lower birth mass	1	allow answers based on knowledge about the effects of smoking on pregnancy such as more likely to produce a premature baby / slower development allow other specified post natal health issues
Paper Total			36	

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