

Additional Applied Science A

General Certificate of Secondary Education **A324/01**

Unit 1: Life Care

Mark Scheme for June 2010

OCR (Oxford Cambridge and RSA) is a leading UK awarding body, providing a wide range of qualifications to meet the needs of pupils of all ages and abilities. OCR qualifications include AS/A Levels, Diplomas, GCSEs, OCR Nationals, Functional Skills, Key Skills, Entry Level qualifications, NVQs and vocational qualifications in areas such as IT, business, languages, teaching/training, administration and secretarial skills.

It is also responsible for developing new specifications to meet national requirements and the needs of students and teachers. OCR is a not-for-profit organisation; any surplus made is invested back into the establishment to help towards the development of qualifications and support which keep pace with the changing needs of today's society.

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.

© OCR 2010

Any enquiries about publications should be addressed to:

OCR Publications
PO Box 5050
Annesley
NOTTINGHAM
NG15 0DL

Telephone: 0870 770 6622
Facsimile: 01223 552610
E-mail: publications@ocr.org.uk

Question		Expected Answer	Mark	Rationale/Additional Guidance
1	a	worse / more serious injury / life threatening condition / triage	[1]	ignore: "more serious" without reference to condition allow: reverse argument
	b	nurse (1) radiologist (1)	[1] [1]	
	c	physiotherapist (1)	[1]	allow: Phonetic spelling
		Total	[4]	

Question		Expected Answer	Mark	Rationale/Additional Guidance
2		so that the practitioner can be paid <input type="checkbox"/> because treatments often have side effects <input checked="" type="checkbox"/> because all treatments carry some risk <input checked="" type="checkbox"/> because they may be smokers <input type="checkbox"/> because it is only a temporary fix <input type="checkbox"/> because it is a legal requirement <input checked="" type="checkbox"/>	[2]	3 correct = 2 marks 2 or 1 correct = 1 mark
		Total	[2]	

Question		Expected Answer	Mark	Rationale/Additional Guidance					
3	a	all 5 bars correctly drawn (2)	[2]	penalise one mark for each incorrectly drawn bar tolerance: $\pm\frac{1}{2}$ square					
	b	50 (2)	[2]	allow: 1 mark for correct substitution					
	c	i	[1]	reject: X-ray ignore: Scan allow: Ultrasound, CT, CAT, PET					
		ii	[3]						
	iii	1. muscle (1) 2. tendon (1) 3. ligament (1)	[2]	3 correct = 2 marks 2 or 1 correct = 1 mark					
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">cartilage</td> <td style="width: 50%; text-align: center;">contract to move a joint</td> </tr> <tr> <td style="text-align: center;">ligaments</td> <td style="text-align: center;">absorbs shock</td> </tr> <tr> <td style="text-align: center;">muscles</td> <td style="text-align: center;">attach bone to bone</td> </tr> <tr> <td style="text-align: center;">tendons</td> <td style="text-align: center;">attach bone to muscle</td> </tr> </table>			cartilage	contract to move a joint	ligaments	absorbs shock	muscles
cartilage	contract to move a joint								
ligaments	absorbs shock								
muscles	attach bone to bone								
tendons	attach bone to muscle								
Total			[10]						

Question		Expected Answer	Mark	Rationale/Additional Guidance
4	a	blood (1) urine (1)	[2]	allow faeces; tissue; pus; saliva; sputum; vomit ignore: DNA, hair, sweat
	b	i	[2]	reject: it is a cleaner technique for Monisha to use allow: economic/efficiency argument (more patients tested in time) reject: easier / quicker to kill (the bacteria)
ii		medical staff and visitors soap and water	[1]	both correct for 1 mark
Total			[5]	

Question		Expected Answer	Mark	Rationale/Additional Guidance
5	a	any three from: red (blood) cell white (blood) cell platelets plasma	[3]	
	b	i	[2]	3 correct = 2 marks 2 or 1 correct = 1 mark
		ii	[1]	- records need to be inspected / used by other health care professionals. - (blood needs to be easily tracked) to ensure a correct match when used. - (blood needs to be easily tracked) to enable swift removal from the system should it be shown to be contaminated.
		Total	[6]	

Question		Expected Answer	Mark	Rationale/Additional Guidance
6	a	Colin has pulled a muscle in his back <input checked="" type="checkbox"/>	[2]	3 correct = 2 marks 2 or 1 correct = 1 mark
		The water temperature is only 25°C <input type="checkbox"/>		
		Colin had too much alcohol at a party <input type="checkbox"/>		
		Colin is not winning any competitions <input checked="" type="checkbox"/>		
		Colin has had a tattoo on his shoulder <input type="checkbox"/>		
		Colin has just returned from a 2 week holiday <input checked="" type="checkbox"/>		
	b	precise / exact / close to true value reference to a quantitative aspect of using stopwatch how many times it is repeated consistency/conformity of results	[2]	allow: e.g. digital stopwatch recording to thousandths of a second ignore: "trustworthy"
Total			[4]	

Question		Expected Answer	Mark	Rationale/Additional Guidance
7	a	treatments can carry side effects / risks (1) treatment may have benefit / chance of success / increased life expectancy (1)	[2]	allow: specific side effects for any treatment (1) Benefits outweigh the risks (2) ignore: reference to safety / comfort / effectiveness
	b	any three from: makes health / medical care available (to all) (1) provides specialist care (1) monitors trends (1) plans health care (1) allocates resources (1)	[3]	allow: Free (at the point of delivery) allow: Funded through taxation allow: Education or advice about health issues / diet
		Total	[5]	
		Paper Total	[36]	

OCR (Oxford Cambridge and RSA Examinations)
1 Hills Road
Cambridge
CB1 2EU

OCR Customer Contact Centre

14 – 19 Qualifications (General)

Telephone: 01223 553998

Facsimile: 01223 552627

Email: general.qualifications@ocr.org.uk

www.ocr.org.uk

For staff training purposes and as part of our quality assurance programme your call may be recorded or monitored

Oxford Cambridge and RSA Examinations
is a Company Limited by Guarantee
Registered in England
Registered Office; 1 Hills Road, Cambridge, CB1 2EU
Registered Company Number: 3484466
OCR is an exempt Charity

OCR (Oxford Cambridge and RSA Examinations)
Head office
Telephone: 01223 552552
Facsimile: 01223 552553

© OCR 2010

