

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		Answer	Mark	Additional Guidance																												
1	(a)	<p><i>Ticks as shown:</i></p> <table border="1"> <thead> <tr> <th>Device</th> <th>Input (✓)</th> <th>Output (✓)</th> <th>Storage (✓)</th> </tr> </thead> <tbody> <tr> <td>A4 scanner</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>CD/DVD drive</td> <td></td> <td></td> <td>✓</td> </tr> <tr> <td>Keyboard</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>Monitor</td> <td></td> <td>✓</td> <td></td> </tr> <tr> <td>Video camera</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Device	Input (✓)	Output (✓)	Storage (✓)	A4 scanner	✓			CD/DVD drive			✓	Keyboard	✓			Monitor		✓		Video camera	✓							[5]	
Device	Input (✓)	Output (✓)	Storage (✓)																													
A4 scanner	✓																															
CD/DVD drive			✓																													
Keyboard	✓																															
Monitor		✓																														
Video camera	✓																															
1	(b)	(Inkjet) printer	[1]																													
1	(c)	Headphones	[1]																													
1	(d)	Mouse	[1]																													
1	(e)	Microphone	[1]																													

Question		Answer	Mark	Additional Guidance																
2	(a)	<p>Ticks as shown:</p> <table border="1"> <thead> <tr> <th>Graphics Tool</th> <th>Tick (✓)</th> </tr> </thead> <tbody> <tr> <td>Crop</td> <td></td> </tr> <tr> <td>Cut</td> <td></td> </tr> <tr> <td>Flip</td> <td></td> </tr> <tr> <td>Fill</td> <td>✓</td> </tr> <tr> <td>Resize</td> <td>✓</td> </tr> <tr> <td>Rotate</td> <td>✓</td> </tr> <tr> <td></td> <td></td> </tr> </tbody> </table>	Graphics Tool	Tick (✓)	Crop		Cut		Flip		Fill	✓	Resize	✓	Rotate	✓			[3]	
Graphics Tool	Tick (✓)																			
Crop																				
Cut																				
Flip																				
Fill	✓																			
Resize	✓																			
Rotate	✓																			
2	(b) (i)	<p>One from:</p> <ul style="list-style-type: none"> No paper in printer No ink in cartridge Paper jam Printer off-line/switched off/not connected Incorrect printer chosen/wrong printer driver 	[1]																	
2	(b) (ii)	<p>One from:</p> <ul style="list-style-type: none"> CD-R(W) DVD-/+ R(W) DVD-RAM zip disk jaz disk Flash memory card Memory stick External hard drive Floppy disk <p>Do not accept CD-ROM, DVD-ROM, email, or disk by itself.</p>	[1]	<p>Accept a suitable writable storage medium.</p> <p>Allow eg Pen Drive, USB stick, USB key, USB fob but do not allow USB on its own.</p>																
2	(c) (i)	B5	[1]																	
2	(c) (ii)	<p>One mark for <u>each</u> of:</p> <p>E5 E8</p>	[2]	E17 does not contain a formula so do not allow it.																

Question			Answer	Mark	Additional Guidance																				
2	(d)		<p>Ticks as shown:</p> <table border="1"> <thead> <tr> <th>Cell</th> <th>Value (✓)</th> <th>Formula (✓)</th> <th>Label (✓)</th> </tr> </thead> <tbody> <tr> <td>B1</td> <td></td> <td></td> <td>✓</td> </tr> <tr> <td>B6</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>E6</td> <td></td> <td>✓</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Cell	Value (✓)	Formula (✓)	Label (✓)	B1			✓	B6	✓			E6		✓						[3]	
Cell	Value (✓)	Formula (✓)	Label (✓)																						
B1			✓																						
B6	✓																								
E6		✓																							
2	(e)	(i)	<p>=E8-E15</p> <p>1 mark for correct calculation.</p> <p>1 mark for identifying the cells in the correct order.</p> <p>Allow without = sign.</p> <p>Allow 1 mark for any other correct formula.</p>	[2]																					
2	(e)	(ii)	E17	[1]																					

Question		Answer			Mark	Additional Guidance															
3	(a)	2/two			[1]																
	(b)	11/eleven			[1]																
3	(c)	<table border="1"> <thead> <tr> <th>Field</th> <th>Data type</th> <th>Why this type has been chosen</th> </tr> </thead> <tbody> <tr> <td>House No.</td> <td>(Text)</td> <td>(Because house numbers could be a mixture of numbers or letters eg 61a)</td> </tr> <tr> <td>Gender (M/F)</td> <td>Boolean</td> <td> <ul style="list-style-type: none"> • One of only two choices </td> </tr> <tr> <td>Home telephone number</td> <td>Text</td> <td> <i>One from:</i> <ul style="list-style-type: none"> • Can use any character in the field • Can have leading zeros • Can use spaces </td> </tr> <tr> <td>Number of brothers/sisters</td> <td>Integer</td> <td> <ul style="list-style-type: none"> • Only whole numbers </td> </tr> </tbody> </table>	Field	Data type	Why this type has been chosen	House No.	(Text)	(Because house numbers could be a mixture of numbers or letters eg 61a)	Gender (M/F)	Boolean	<ul style="list-style-type: none"> • One of only two choices 	Home telephone number	Text	<i>One from:</i> <ul style="list-style-type: none"> • Can use any character in the field • Can have leading zeros • Can use spaces 	Number of brothers/sisters	Integer	<ul style="list-style-type: none"> • Only whole numbers 			[6]	Mark each box independently. Allow alphanumeric for home telephone number.
Field	Data type	Why this type has been chosen																			
House No.	(Text)	(Because house numbers could be a mixture of numbers or letters eg 61a)																			
Gender (M/F)	Boolean	<ul style="list-style-type: none"> • One of only two choices 																			
Home telephone number	Text	<i>One from:</i> <ul style="list-style-type: none"> • Can use any character in the field • Can have leading zeros • Can use spaces 																			
Number of brothers/sisters	Integer	<ul style="list-style-type: none"> • Only whole numbers 																			
3	(d)	<p>Four from:</p> <ul style="list-style-type: none"> • Can sort the data <ul style="list-style-type: none"> ○ On several fields at once ○ (All data in a record is sorted) with all other data in other fields in the record • Can search the data <ul style="list-style-type: none"> ○ (Can create and save) queries • Can use multiple tables of data <ul style="list-style-type: none"> ○ Can customise relationships between tables/data ○ Key field • Can normalise data • Can use data entry forms • Can produce reports • Can define field types 					[4]														

Question			Answer	Mark	Additional Guidance
3	(e)	(i)	(Primary) Key (field)	[1]	This is the only answer.
3	(e)	(ii)	<p>One from:</p> <ul style="list-style-type: none"> • Unique • Everyone is different • No two are the same 	[1]	
3	(f)		<p>Example Points and Expansions from:</p> <ul style="list-style-type: none"> • User IDs <ul style="list-style-type: none"> ○ to identify users to the system • Passwords <ul style="list-style-type: none"> ○ on files/folders ○ for security • Rules for setting password/example rule <ul style="list-style-type: none"> ○ to make passwords more secure/difficult to guess. • Rules for use of passwords by user/example rule <ul style="list-style-type: none"> ○ change the password regularly ○ to protect against breach of security of password. • Rules for attempts at password guessing/example eg <ul style="list-style-type: none"> ○ three attempts and account lockout ○ to prevent password cracking • Set access rights <ul style="list-style-type: none"> ○ for security/control access to files/folders • Use of firewalls <ul style="list-style-type: none"> ○ to prevent access by unauthorised computers/data packets ○ to allow access only to authorised computers/data packets • Use of Virtual Private Networks <ul style="list-style-type: none"> ○ to make connection invisible to others on internet ○ to make secure connection • Monitor access/use anti-spyware <ul style="list-style-type: none"> ○ to detect intrusions/raise the alarm/send alerts <p>Continued</p>		<p>One mark for the method, one for what it does/how it works.</p> <p>“How it works” marks must be correctly related to the method.</p>

Question		Answer	Mark	Additional Guidance																								
3	(f)	<p>Continued</p> <ul style="list-style-type: none"> • Physical security measures(s) <ul style="list-style-type: none"> ○ to prevent (mis)use of computers within the school • Advertise laws eg Computer Misuse Act <ul style="list-style-type: none"> ○ imposes penalties for hacking <p>Accept: encryption...to make the data unintelligible to the unauthorised reader/hacker</p> <p><i>This question to be marked as a graded response using this grid.</i></p> <table border="1"> <thead> <tr> <th></th> <th>1 point</th> <th>2 points</th> <th>3 or more points</th> </tr> </thead> <tbody> <tr> <td>No expansions</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>1 expansion</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>2 expansions</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>3 or more expansions</td> <td>4</td> <td>5</td> <td>6</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		1 point	2 points	3 or more points	No expansions	1	2	3	1 expansion	2	3	4	2 expansions	3	4	5	3 or more expansions	4	5	6					[6]	
	1 point	2 points	3 or more points																									
No expansions	1	2	3																									
1 expansion	2	3	4																									
2 expansions	3	4	5																									
3 or more expansions	4	5	6																									

Question		Answer	Mark	Additional Guidance																														
4	(a)	<p><i>Ticks as shown:</i></p> <table border="1"> <thead> <tr> <th>Feature</th> <th>Back button (✓)</th> <th>Email address (✓)</th> <th>Hyperlink (✓)</th> <th>Web address (✓)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>✓</td> <td></td> <td></td> <td></td> </tr> <tr> <td>B</td> <td></td> <td></td> <td></td> <td>✓</td> </tr> <tr> <td>C</td> <td></td> <td></td> <td>✓</td> <td></td> </tr> <tr> <td>D</td> <td></td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Feature	Back button (✓)	Email address (✓)	Hyperlink (✓)	Web address (✓)	A	✓				B				✓	C			✓		D		✓								[4]	
Feature	Back button (✓)	Email address (✓)	Hyperlink (✓)	Web address (✓)																														
A	✓																																	
B				✓																														
C			✓																															
D		✓																																
4	(b)	<p><i>Two from:</i></p> <ul style="list-style-type: none"> • History (list) • Bookmark/favourites • Type in the URL • Store for viewing off-line • Create/use a shortcut 	[2]																															

Question		Answer	Mark	Additional Guidance
5	(a)	<p>Two from:</p> <ul style="list-style-type: none"> • Use of bullet points • New line for each day/time • Use of bold/italic/underline/font/colour effect • Change the font family/type • Use of text size differences • Put in a table • Centred 	[2]	
5	(b)	<p>Two from:</p> <ul style="list-style-type: none"> • Compare poster..... •with original newsletter..... •to make sure there are no transcription errors • Verification/verify • Spell check • Proof read 	[2]	

Question			Answer	Mark	Additional Guidance
6	(a)	(i)	Modem	[1]	This is the only answer
6	(a)	(ii)	<p>Two from:</p> <ul style="list-style-type: none"> • Converts • To/from analogue data • From/to digital data • Demodulate/modulate (the signals) 	[2]	<p>Accept references to “computers use digital..”, “telephone lines use analogue...”</p> <p>demodulate/modulate (the signals) is worth one mark, but can award a second if there is an explanation of what this means</p>
6	(b)		<p>Four from:</p> <ul style="list-style-type: none"> • Always on/anytime access to internet <ul style="list-style-type: none"> ○ no need to actively connect • Central database available all the time • High speed connections <ul style="list-style-type: none"> ○ faster downloads of files/no interruptions/won't time out ○ faster loading of pages • Telephone line is left free/don't need a second line <ul style="list-style-type: none"> ○ for voice/fax use • Email delivered from server as it arrives at server <ul style="list-style-type: none"> ○ no need to request it • More than one computer/user can access the internet at once 	[4]	

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