



# Applied ICT

**GCSE** 1494

## Mark Schemes for the Units

### January 2007

1494/MS/R/07J

**Oxford Cambridge and RSA Examinations** 

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Mark schemes should be read in conjunction with the published question papers and the Report on the Examination.

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#### MARK SCHEME ON THE UNITS

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4872	ICT Knowledge and Understanding	1
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### Mark Scheme 4872 January 2007

4872

No half marks.

No credit for named software, unless qualified.

No marks for 'quicker', 'easier', 'cheaper', 'more efficient' unless further explanation relevant to the question is given.

Each line on the mark scheme below is worth one mark unless clearly shown otherwise. Items separated by/are alternatives. Items in brackets are not compulsory for the mark.

Question No.		Grid Ref.	Max Mark
<b>1</b> (a)	Scanner. CAO	7.2.2(i)	[1]
(b)	One from: <ul> <li>keyboard</li> <li>mouse</li> <li>scanner (if not given for part (a))</li> </ul>	7.2.2(i)	[1]
(C)	(Laser) printer. CAO	7.2.2(ii)	[1]
(d)	One from: • speakers • monitor • (laser) printer (if not given for part (c))	7.2.2(iii)	[1]
(e)	Processor. CAO	7.2.2(ii)	[1]
(f)	<ul> <li>hard disk (drive)</li> <li>CD (rewriter/drive)</li> </ul>	7.2.2(v)	[2]

Question No.		Grid Ref.	Max Mark
<b>2</b> (a)	<ul> <li>Three from, eg:</li> <li>saves storage space</li> <li>quicker/easier to find/access/search for records</li> <li>quicker/easier to sort records</li> <li>can use in other packages (eg mailmerge)</li> <li>quicker/easier to edit/keep up to date/don't have to cross out</li> <li>can be shared between two users</li> <li>can be accessed remotely</li> <li>can produce reports/printouts showing data in different ways</li> <li>passwords for increased security</li> <li>validation/verification means fewer errors</li> <li>backups/second copy means less easily lost</li> <li>make as many copies as you like</li> <li>NOT just 'reports' or 'can print out' or 'easier to read'</li> <li>NOT just 'more secure' - need to give a reason</li> </ul>	6.2.1c	[3]
(b)	<ul> <li>Four points from <ul> <li>he could store customers in one table</li> <li>rooms in another table</li> <li>tables would be linked</li> <li>through a bookings table</li> <li>this would avoid duplication [1] so reducing the chance of errors [1] saving time [1]</li> <li>less to type for each new booking</li> <li>he can search/produce queries/reports using data from more than one table</li> </ul> </li> <li>Must be able to at least give candidate BoD that related tables are being considered before marks are awarded. Easier/quicker/fewer errors may be valid answers but they must be given as a valid consequence of something else awarded from the above and must not be awarded more than once <ul> <li>Up to 3 marks can be awarded for showing an understanding of the issues even if incorrect terminology used.</li> </ul> </li> </ul>	6.2.1c	[4]
(c)	Data Protection (Act). CAO, ignore any dates	8.2.4(i)	[1]

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(d)	<ul> <li>Three from:</li> <li>must register</li> <li>data subjects must consent</li> <li>must show people their data (if they ask)</li> <li>must keep personal data accurate/up to date</li> <li>must not keep data longer than necessary</li> <li>must keep data secure/safe from loss/prevent unauthorised people seeing it</li> <li>must not use data for anything else (other than registered purpose)</li> <li>data must be adequate/relevant/not excessive</li> <li>must not pass data to countries without adequate DP legislation. Accept outside EU.</li> </ul>	8.2.4(i) 6.2.4(viii)	[3]
	• must not pass data to countries without adequate DP		
	<ul> <li>NOT 'password/encryption' on its own as this is not a requirement of the Act</li> </ul>		

Question No.		Grid Ref.	Max Mark
<b>3</b> (a)		8.2.1(iii)	[1]
	A DVD stores a lot more data than a CD ✓		
	DVDs are only used for films		
	DVDs and CDs store data magnetically		
(b)	2 from:	7.2.2(iii)	[2]
( )	higher resolution/clearer screen. NOT better quality		
	need to see graphics clearly		
	smaller footprint/thin		
	might not have much space on desk		
	doesn't flicker     aba paada ta laak at it far lang pariada of tima		
	<ul> <li>she needs to look at it for long periods of time</li> <li>reduced glare</li> </ul>		
	<ul> <li>reduced glate</li> <li>reduces eye strain</li> </ul>		
(C)	Three from:	7.2.2(v)	[3]
(-)	more temporary/internal memory	( )	• • •
	DTP/photographs/pictures/video take up more		
	memory/bigger		
	her documents might contain a lot of photos, etc./may be		
	very large		
	<ul> <li>allows her to have more programs open at once</li> <li>example of programs she might want open at once, eg</li> </ul>		
	DTP, graphics, scanner		
	<ul> <li>her computer will work more quickly/too slow if not enough</li> </ul>		
	RAM		
	<ul> <li>would waste time if she was waiting for her computer all the time</li> </ul>		
	Must be immediate use NOT storage		
(d)	One mark for device, one for difference, one for relevance from:	7.2.2(ii)	[3]
	hard disk drive	7.2.2(iii)	
	(much) bigger/stores more data     DTD/graphics/video_fileo_gap be very large	7.7.7(v)	
	DTP/graphics/video files can be very large		
	• processor		
	• faster		
	graphics/DTP/video need faster processor		
	• printer		
	colour. NOT faster or better quality		
	eg leaflets may need to be in colour		
	video/graphics card		
	faster/more powerful/more RAM		
	to process graphics more quickly		
	sound card		
	• better		
	to hear sounds from website more accurately		
	could be other answers, but not new components, must be		
	higher specification than originals. NOT CD/DVD, Monitor or RAM		

Question No.		Grid Ref.	Max Mark
<b>4</b> (a)	Computers linked together	7.2.2(vi)	[1]
(b)	<ul> <li>Two marks for each point. 1 for an idea, 2 if expanded, eg:</li> <li>Sharon and Rob can share printers (1) in case Rob ever needs a colour print/when Sharon needs to print out a draft (1)</li> <li>can share data/have intranet (1) suitable example (1)</li> <li>sharing Internet access (1) so all computers can access Internet at the same time/using the same line/without separate modems (1)</li> <li>management of computer systems easier (1) can be done centrally (1)</li> <li>Sharon and Rob can access each others files (1) suitable example (1)</li> <li>can send messages/email (1) so Sharon and Rob can send/leave messages on the computer/don't have to leave paper notes (1)</li> <li>can access work from any computer (1) so Sharon/Rob can use the reception computer (1)</li> <li>Nothing to do with security or auditing, only having to install software once or other advantages of client-server networks.</li> </ul>	7.2.1	[4]

Question No.		Grid Ref.	Max Mark
<b>5</b> (a)	<ul> <li>One mark each improvement and 2 for methods (1 for a vague answer, 2 for more precision) eg:</li> <li>use a bigger font (1)</li> <li>highlight text (1) choose larger size from toolbar (1)</li> <li>centre text (1)</li> <li>highlight text (1) and choose option from toolbar (1)</li> <li>use a clearer/less fancy font/change font (1)</li> </ul>	6.2.1a	[9]
	<ul> <li>highlight text (1) and choose different font from toolbar (1)</li> <li>make the title bigger/bolder/underlined (1)</li> </ul>		
	• highlight title (1) choose option from toolbar (1)		
	<ul> <li>coloured text NOT background (1)</li> <li>highlight text (1) choose colour (1)</li> </ul>		
	<ul> <li>add graphics/photos (1)</li> <li>insert clipart/picture (1) choose/locate picture (1) and crop/move/resize appropriately (1)</li> </ul>		
	<ul> <li>add a border/more attractive/interesting border (1)</li> <li>highlight text (1) and choose border from menu (1)</li> <li>or choose border from menu (1) and choose page border (1)</li> </ul>		
	<ul> <li>put meal times into a table/use bullets/tabs (1)</li> <li>highlight the lines (1) choose convert to table option (1)</li> </ul>		
	<ul> <li>insert a table (1) and copy/paste elements (1)</li> <li>highlight the lines (1) choose bullets from toolbar/menu</li> </ul>		
	<ul> <li>sign names by hand (1)</li> <li>scan image (1) insert scanned image as picture (1) and move/resize (1)</li> </ul>		
(b)	<ul> <li>MUST refer to improvements in (a)</li> <li>Up to 2 marks for general answers, eg:</li> <li>makes it more attractive/interesting</li> <li>makes it easier to read</li> </ul>	6.2.1a	[4]
	<ul> <li>Made up to 4 with more specific answers, eg</li> <li>fancy font harder to read/new font easier to read</li> <li>need to fill the page</li> <li>title needs to stand out</li> </ul>		
	<ul> <li>tables/bullets make meal times easier to read/stand out</li> <li>relevance of specific pictures</li> </ul>		
	<ul> <li>real signature looks more personal</li> <li>NOT more professional or demonstrating ICT skills</li> <li>NOT changing content of text</li> </ul>		

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Question No.		Grid Ref.	Max Mark
<u>6 (a) (i)</u> (ii)	<ul> <li>DTP/desktop publisher/desktop publishing/publications</li> <li>Two from <ul> <li>templates/ready made layouts for brochures/with layouts set</li> <li>wizards to help design</li> <li>easier to move text and graphics (where you want)</li> <li>can put text where you want using text boxes</li> <li>design check feature checks for common problems</li> <li>layout guides, help you position items</li> <li>can save files in right format ready for sending to commercial printing company</li> <li>can print pages in correct order for folding/booklet format</li> <li>advanced formatting features, eg kerning, dropped capitals (1 mark each)</li> <li>text wrapping around images</li> <li>text can flow from one text box to another</li> <li>use of columns</li> </ul> </li> <li>Do not accept one-word answers – must be reasons No marks for basic WP features, eg fonts, spellcheck, tables, bullets.</li> </ul>	6.2.2(iv) 6.2.2(iv)	[1] [2]
(b) (i)	One from: • spell check • grammar check • layout check	6.2.1a	[1]
(ii)	<ul> <li>proof reading/description</li> <li>check accuracy of content</li> <li>get someone else to check</li> </ul>	6.2.1a	[1]
(iii)	<ul> <li>Two from:</li> <li>spell/grammar/layout check automatic/quick/reliable OR example of an error that an automatic check is better at finding, eg stretched pictures</li> <li>proof reading needed to find words that are in dictionary but not correct OR example of an error that could not be found by spell/grammar/layout check</li> <li>because any errors would give a poor impression of the hotel</li> <li>NOT an example of spellcheck not recognising a correct word.</li> <li>MUST be a reason why both are required, not just an explanation of what one does.</li> </ul>	6.2.1a	[2]

Question		Grid	Max
No.		Ref.	Mark
6 (c)	<ul> <li>1 mark each source, 2 for explanation, eg: <ul> <li>Internet/websites(1)</li> <li>for maps (1) to show how to get to hotel (1) more accurate/quicker than drawing own (1)</li> <li>wide variety of images</li> </ul> </li> <li>drawing package (1)</li> <li>to draw maps (1) to show how to get to hotel (1)</li> <li>to draw plans of hotel (1) to show layout (1)</li> <li>to create/draw logo for hotel (1)</li> <li>allows original drawings (1)</li> </ul> <li>scanner(1)</li> <li>to scan old/existing photographs (1) to show what hotel/area used to look like (1)/to show photographs of the surrounding area without going out (1)</li> <li>Clip Art/disks of pictures (1)</li> <li>for symbols (1) eg scissors to show where to cut off a coupon/other example (1)</li> <li>to add humour/interest (1)</li>	8.2.1(i) 6.2.1a	[6]

Question No.		Grid Ref.	Max Mark
7 (a) (i)	B5 or R5C2. Nothing else	6.2.1b	[1]
(ii)	F5, F10, F11 and F12 Allow other (incorrect) notation, eg 5F, or arrows to correct cells, for this part only. 1 mark for at least one. 2 for the exact answer.	6.2.1b	[2]
(b)	<ul> <li>(=)B2*E2(2)</li> <li>1 mark if just 1 cell incorrect</li> <li>1 mark for an idea that has some merit but would not work, eg sum = (B2*E2)</li> </ul>	6.2.1b	[2]
(C)	<ul> <li>(=) sum(F2:F8) or sum(F2:F9) (2)</li> <li>1 mark for any other formula that would work</li> <li>1 mark for an idea that has some merit but would not work, eg sum(F2:F7) or sum = (F2:F8)</li> </ul>	6.2.1b	[2]
(d)	<ul> <li>1 mark each feature, 1 each cell:</li> <li>merge/ A1,B1, C10-E10, C11-E11, C12- E12 remove border</li> <li>fill/shade E7 or E8</li> <li>text any A, C or D or row 1</li> <li>centre A1, D1, E1, F1</li> <li>centre vertical A1, D1, E1, F1</li> <li>wrap (text) E1</li> <li>row height row 1</li> <li>currency/2dp E2, E3, E5, any from column F</li> <li>0dp B2, B5</li> <li>Accept any answer which could be a valid formatting feature for the cell(s) given. Only accept alignment once.</li> </ul>	6.2.1b	[2]
(e)	<ul> <li>2 from:</li> <li>can print off a copy for the customer to take away</li> <li>can email sheet to customer</li> <li>can see the effect of changes (instantly)</li> <li>can save completed sheets</li> <li>can be imported to other programs (for quotes, letters)</li> <li>quicker than doing each calculation separately/just have to type in the choices</li> </ul>	6.2.1b	[2]

Question		Grid	Max
No.		Ref.	Mark
<b>7</b> (f)	<ul> <li>6 from:</li> <li>copy/type in/add table of options/prices</li> <li>to another sheet/bottom of sheet/suitable cells</li> <li>set validation checks for choices/example/ column D</li> <li>all of D2, D3, D5, D7 and D8 specified</li> <li>allowing values from lists in table</li> <li>to give drop/down lists/stop Rob having to type in the options</li> <li>pick out prices using a formula</li> <li>so that he does not have to lookup/type in prices manually</li> <li>example of IF or LOOKUP formula that would work (2 marks for complete formula, 1 for basic idea)</li> <li>location of IF/LOOKUP formula, eg E2, E3, E5 (1 mark for 1 or 2 cells, 2 marks for all 3)</li> <li>use IF(D7 "Yes", (reference to 250),0) (2 marks for complete formula, 1 for basic idea or formula with the value 250)</li> <li>in F7</li> <li>use IF(D8="Yes", (reference to 150),O) (2 marks for complete formula, 1 for basic idea or formula with the value 150)</li> <li>in F8</li> <li>put VAT rate in a separate cell</li> <li>change the formula in F11 to refer to separate cell (2 marks for complete formula, in F11 to refer to G1), 1 mark for basic idea.)</li> <li>lock/protect cells with formulas/labels</li> <li>add default values (for most common options)</li> <li>so less to type each time.</li> </ul>	6.2.1b	[6]

Question No.		Grid Ref.	Max Mark	
<b>8</b> (a)	<ul> <li>1 mark each feature, up to 2 for each reason, eg:</li> <li>sound</li> <li>could include background music to go with (eg) photographs of restaurant (1) to give a feel for the atmosphere (1)</li> </ul>	8.2.1(i)	[9]	
	<ul> <li>video</li> <li>could include video of the hotel (1) showing more than photographs (1)</li> </ul>			
	<ul> <li>animation/moving images/text (marquees)</li> <li>could animate images/text to move across/down/up the screen (1) catch the eye/gain attention/make the site more interesting (1)</li> </ul>			
	<ul> <li>(hyper)links/buttons/navigation bar</li> <li>need links between/to other pages (1) so that users can access all pages easily (1)</li> <li>could include links to websites of local area/places of interest (1) to allow users to plan their stay (1)</li> </ul>			
	<ul> <li>input boxes/drop down menus/buttons/forms</li> <li>can be used on an enquiry/order form (1) so customers can enquire/book online (1)</li> </ul>			
	<ul> <li>(hit) counter</li> <li>used to count number of people visiting the site (1) so that hotel can see how useful the site is (1)</li> </ul>			
	<ul> <li>search tool</li> <li>used to help find specific items (1) by keywords (1) more quickly (than browsing) (1)</li> </ul>			
	<ul> <li>mouseover effects</li> <li>to highlight (1) hotspots (1)</li> <li>to show (1) drop-down menus/further information (1)</li> </ul>			
	<ul> <li>popups</li> <li>to show adverts (1) to get paid (1)</li> </ul>			
	Reasons must be specific and relevant to a hotel website. Accept interesting/eye catching/attractive only once.			

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Question		Grid	Max		
No.		Ref.	Mark		
(b)	<ol> <li>1 mark each advantage/disadvantage with up to 1 additional mark for an explanation (usually giving a consequence or cause).</li> <li>1 additional mark available for a reasoned conclusion not already awarded.</li> <li>Max 4 for advantages or disadvantages only.</li> <li>eg: advantages</li> <li>many people now look on the web for accommodation/holidays (1) so without a website people might not find out about Blakey's Lodge/people are more likely to find out about Blakey's Lodge (1)</li> <li>booking online is convenient (1) so people are more likely to book (1)</li> <li>reduces need to send out brochures (1) which saves time/cost/is more convenient (1)</li> <li>you can put a lot of information on a website (1) so might reduce telephone enquiries (1)</li> <li>can have links to your website from other (local) sites (1) so more chance of people finding out about the hotel (1)</li> <li>inclusion of (eg) video allows people better idea of what the hotel is like (1)</li> <li>easier to update website (than brochures) (1) because don't have to print them (1)</li> <li>cheaper than printing out brochures (1)</li> <li>disadvantages</li> <li>need more expertise to create/maintain website (1) especially if including on-line booking (1)</li> <li>takes time to set up/maintain website (1)</li> <li>need more expertise to create/maintain website (1)</li> <li>security risk of online booking (1) need encryption (1)</li> <li>if Internet connection lost/errors on site could lose some bookings (1) which would give bad reputation (1)</li> <li>overall, although it is more costly to have a website I think that it is important, because so many more customers now rely on web bookings and expect hotels to have web sites. (1)</li> </ol>	8.2.1(i)	[6]		

Max Mark

[6]

Question No.		Grid Ref.
9	<ul> <li>1 mark for a straightforward point, up to 2 for an explanation (usually involving a cause or a consequence) eg:</li> <li>need a firewall (1) to prevent hackers accessing the computer system (<i>not just files</i>) (1) because broadband is always connected (1)</li> <li>need to password protect files (1) especially if/because they are being sent by email (1) so that without the password they can't be opened/seen (1) suitable advice regarding passwords, eg choice/changing regularly (1)</li> <li>need to set access rights (1) so areas/files cannot be accessed (1) or altered/erased (1) if hackers access the network (1)</li> <li>need to use encryption (1) for files being sent by email (1) so that without the correct key they can't be understood (1)</li> <li>need digital signatures on emails (1)</li> </ul>	6.2.4(i 8.2.1(i

#### General Certificate of Secondary Education Applied ICT (Double Award) 1494 January 2007 Assessment Series

#### **Unit Threshold Marks**

Unit		Maximum Mark	<b>A</b> *	Α	В	С	D	Е	F	G	U
4872	Raw	100	79	69	59	50	41	32	24	16	0
	UMS	100	90	80	70	60	50	40	30	20	0
4873	Raw	50	46	41	36	31	26	21	16	11	0
	UMS	100	90	80	70	60	50	40	30	20	0
4874	Raw	50	46	41	36	31	26	21	16	11	0
	UMS	100	90	80	70	60	50	40	30	20	0

#### **Entry Information**

Unit	Total Entry
4872	2191
4873	1094
4874	240

#### **Specification Aggregation Results**

GRADE	A*A*	AA	BB	CC	DD	EE	FF	GG	UU
UMS	270	240	210	180	150	120	90	60	0
Cum %	0.00	2.70	29.73	70.27	97.30	100.0	100.0	100.0	100

114 candidates were entered for aggregation this series

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