

Mark Schemes on the Unit

June 2009

1494/MS/R/09

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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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Applied GCSE ICT (1494)

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4872 ICT Knowledge and Understanding

SPECIFIC INSTRUCTIONS FOR MARKING SCRIPTS (Principal Examiner)

- 1 Mark strictly to the mark scheme. If in doubt consult your Team Leader by telephone or the messaging system within SCORIS[®], or by email.
- 2 Each line on the mark scheme for a question is worth one mark unless clearly shown otherwise. Items separated by '/' are alternatives. Items in brackets are not compulsory for the mark.
- 3 Additional instructions/clarification for examiners is given in italics.
- 4 Whilst candidates will often not use the exact words given here, marks should be awarded when an answer can be matched as equivalent to a line on the mark scheme.
- 5 If an answer cannot be matched against a point on the mark scheme, yet appears to be worthy of a mark, reference should be made to the Team Leader. The exception to this is where the mark scheme says 'eg', indicating that there will be many other acceptable answers.
- 6 Where the spelling only is incorrect but the meaning is clear, marks should be awarded, even where the mark scheme says 'no other answer accepted'.
- 7 Make no deductions for any incorrect statements after an acceptable answer unless the mark scheme says otherwise.
- 8 Work crossed out but not replaced must be marked. If work is crossed out and replaced then only the replacement text should be marked.
- 9 Where there is only one answer given in the mark scheme, this is the only answer available.
- 10 If a candidate gives more answers than asked for, then every answer over the specified number must be ignored – only the first answers in the lists up to the specified number of answers is to be marked. The most important rule to observe where candidates give more answers than required is that the examiner must not be forced into a position of deciding which answers to mark.
- 11 For questions requiring a tick in a row of boxes, eg in an answer table where a candidate gives more than the required number of ticks per row, then deduct one mark for every additional tick but never award less than 0. If the question requires one tick per row then no mark can be awarded if the candidate puts more than one tick.
- 12 Where a question does not specify the number of answers required, eg 'Describe the...' or 'Explain the...' then you must read the whole answer and allocate marks wherever they are found, disregarding any incorrect or vague statements. The exception to this is if a candidate contradicts him/herself by giving a correct and an opposing incorrect answer, in which case credit cannot be given.
- 13 Vague answers such as 'quicker', 'easier', 'cheaper', 'more efficient' are not credited unless there is a clear context from the question, an explanation to accompany the word or the candidate's answer puts it into context.
- 14 Brand names of hardware or software are not to be given credit unless accompanied by a description of their function, eg, "MS Word" would gain no credit but "the word processor MS Word" would be credited.
- 15 There is a NR (No Response) option on SCORIS[®].
- 16 Award 0 marks – if there is any attempt that earns no credit.
- 17 Award NR (No Response) – if there is nothing written at all in the answer space
OR – if there is any comment which does not in any way relate to the question being asked (eg 'can't do', 'don't know')
OR – if there is any sort of mark which isn't an attempt at the question (eg a dash, a question mark)

- 18 **Annotations:** There are a number of annotations available on SCORIS[®]: which should be used if and when appropriate during your marking. Annotations must be used on all standardisation scripts and where specified by supervisors.
- ✓ – Correct point
 - X – Incorrect point
 - TV – Too Vague
 - ^ – Omission mark
 - { – Left bracket – use this to denote the end of a list, after which you have stopped marking
 - BOD – Benefit of the doubt
 - NAQ – Not answered question
 - NBOD – No benefit of doubt given
 - Rep – Repeat
- Highlighting is also available to highlight any particular points on the script.
- 19 **Comments Box**
Please do not use the comments box.
Any questions or comments you have for your team leader should be communicated by phone, messaging system or e-mail.
The comments box will only be used by your PE to explain their marking of the practice scripts for your information.
- 20 Please ensure that you complete the “**Assistant Examiner Feedback form**” half way through your marking.

Question		Answer	Max Mk	
1	(a)	<ul style="list-style-type: none"> • Mouse • Keyboard 	[2]	
	(b)	Monitor	[1]	
	(c)	Hard disk (drive)	[1]	
	(d)	RAM/Random Access Memory	[1]	
	(e)	(i)	Printer	[1]
		(ii)	<p>One mark for:</p> <ul style="list-style-type: none"> • Because it can be shared (through the network) <p>Plus one from:</p> <ul style="list-style-type: none"> • Money can be saved by not buying separate printers/they can share one better quality printer for the same cost as many lesser quality/slower ones • Space can be saved by not having lots of printers • Staff will not be printing all the time/if they had a printer each they would spend a lot of time idle. 	[2]
2	(a)	(i)	Microphone	[1]
		(ii)	<p>One from:</p> <ul style="list-style-type: none"> • Headphones • (loud) Speakers. 	[1]
	(b)		<p>One from:</p> <ul style="list-style-type: none"> • It does not cost anything for the calls/calls are free/don't have to pay for calls/cheaper than paying for calls • Conference calls can be made. 	[1]
	(c)		<p>Two points from:</p> <ul style="list-style-type: none"> • Quality may not be good enough (1) if too many calls being made/computer busy (1) • They need to receive calls from other people (1) who might use the ordinary telephone system / not have broadband/internet/suitable equipment (1). • They would need to use the telephone if their internet connection failed. 	[2]

Question		Answer	Max Mk
3 (a)	(i)	4	[1]
	(ii)	6	[1]
	(b)	Name (of apartment).	[1]
	(c)	Two from: <ul style="list-style-type: none"> • It is the key field/primary key • To identify the record/block/used to search for/find the record/block • There may be more than one block with the same name/ID is unique • Needed to link to other tables. 	[2]
	(d) (i)	Two from: <ul style="list-style-type: none"> • Used for data entry/to enter/edit data (into tables) • Make it easier for non experts/less confusing/more intuitive • Shows records one at a time/laid out as a paper form • Can enter into more than one table at a time • To 'hide' the table structure/ so users don't have to know the table structures • Can have buttons to save, print etc (<i>MUST</i> include the idea of buttons) • Can enter search criteria. 	[2]
	(ii)	<ul style="list-style-type: none"> • Used to select fields for output • Used to search/sort/select records meeting criteria. 	[2]
	(iii)	<ul style="list-style-type: none"> • Output from a query or table • To show data in a well-organised/formatted way / used to format/organise output/suitable examples, eg add titles, add/show graphics • For printing/viewing on screen. 	[2]

Question		Answer	Max Mk	
4	(a)	Computer Aided Design/CAD (software/program)	[1]	
	(b)	<p>Up to two marks for each point – one for the point and one for an explanation of how it meets the requirements eg</p> <ul style="list-style-type: none"> • Easy/quick to make changes to existing designs (1) because most apartment blocks will be very similar/ quicker than starting each one from scratch (1) • Easy/quick to edit (1) so that ideas can be tested / errors put right / alternatives suggested (1) • Can have a library of designs/elements (1) suitable example, eg kitchen/bathroom units, power/telephone/heater keys (1) • Can copy/paste/store designs of standard rooms/apartments (1) to easily create new blocks of different sizes/shapes (1) • Dimensions can be automatically added (1) which the builders will need (1) • Helps architects work together (1) can easily incorporate/share/edit other people's designs (1) • Allows 3-D views to be created automatically/easily / from 2-D drawings (1) so that a better picture of the final apartment can be viewed (1) • It is easy to send/share designs (using email) (1) without copying/sending own copy (1) • Can test designs (1) example – eg stresses, materials (1) • Can be backed-up (1) • Automatic/easy rendering (1) to quickly produce realistic drawings (1) • Shapes can be drawn automatically (1) so the drawings can be completed more quickly (1 only as an expansion of this point) • Lines can automatically be drawn to measurements (1) which allow accurate designs to be created quickly/easily (1) 	[6]	
4	(c)	<p>Up to two marks from <i>one</i> of:</p> <ul style="list-style-type: none"> • If there is a power/computer/software failure/crash (1) will/must not lose whole day's work/needs to be able to retrieve some work (1) • If he makes a mistake (1) can go back to previous version/does not have to start again (1). 	[2]	
	(d)	(i)	<p>Two from:</p> <ul style="list-style-type: none"> • If files are lost/hardware fails • If files are corrupted/changed in error • They can be retrieved from the backups / you still have copies. 	[2]
		(ii)	<p>Two from:</p> <ul style="list-style-type: none"> • CD • DVD • Memory stick/flash memory • Memory card • Web server/On-line storage • External/portable/second hard disk (must be clear that this is not the main hard disk) • Magnetic tape 	[2]

Question		Answer	Max Mk	
	(iii)	Three from: <ul style="list-style-type: none"> • Portability/physical size/ease of storage • Capacity • Speed of access/saving • Robustness/durability • Reusability • Whether any additional hardware/software is required / compatible with existing system 	[3]	
5	(a)	Two from: <ul style="list-style-type: none"> • Easier to place (text and) graphics where you want them • Templates specifically for newsletters are available • Wizards specifically for newsletters are available • Master pages can be set up (to create a uniform look/housestyle) • Elements can be accurately placed/guidelines available to help position text/graphics • Pages can be printed in the right sequence for folding • Pages can be output in a format acceptable to commercial printers/colour separation • Text can be set to flow between frames • Design checking facilities/examples, eg stretch pictures, text in overflow. 	[2]	
	(b)	(i)	Mail merge/mail merging	[1]
		(ii)	Three from: <ul style="list-style-type: none"> • (personal) details are stored in a file/table/database/ spreadsheet • Data file is linked to text document • Fill points/codes/fields/links to these details are inserted in relevant places in the letter • The merge option is selected/data file is merged with/into document 	[3]
	(c)		Two points from: <ul style="list-style-type: none"> • Not everyone has access to email/be able to use email • Elderly people are less likely to have access to email / be able to use email • Newsletters/DTP documents are designed to be looked at on paper / (older) people might prefer to read them on paper. 	[2]

Question	Answer	Max Mk															
5 (d)	<p>One mark each correct row.</p> <table border="1"> <thead> <tr> <th>Statement</th> <th>True (✓)</th> <th>False (✓)</th> </tr> </thead> <tbody> <tr> <td>Any photograph copied from a website can be used in the newsletter</td> <td></td> <td>✓</td> </tr> <tr> <td>Alding Properties must make sure that the names and addresses they store are correct</td> <td>✓</td> <td></td> </tr> <tr> <td>The occupants of the apartments have the right to see the information Alding Properties stores about them</td> <td>✓</td> <td></td> </tr> <tr> <td>Alding Properties must make sure that any personal information they store is safe from hackers</td> <td>✓</td> <td></td> </tr> </tbody> </table>	Statement	True (✓)	False (✓)	Any photograph copied from a website can be used in the newsletter		✓	Alding Properties must make sure that the names and addresses they store are correct	✓		The occupants of the apartments have the right to see the information Alding Properties stores about them	✓		Alding Properties must make sure that any personal information they store is safe from hackers	✓		[4]
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Alding Properties must make sure that any personal information they store is safe from hackers	✓																

Question	Answer	Max Mk
6 (a)	Up to 3 marks for each media type: <ul style="list-style-type: none"> • Text (1) <ul style="list-style-type: none"> - Any suitable use for text (1 each), eg written descriptions of the apartments, quotes from residents. - Any suitable formatting for a presentation eg large bold font (1) - Any relevant reason/advantage, eg to try to persuade people that they are good apartments, (1) • Video (1) <ul style="list-style-type: none"> - Any suitable use (1 each), eg video of residents talking about their apartments, video walk-throughs. - Any relevant reason, eg to show real people who are enthusiastic, to show more realism than still photographs (1) (<i>MUST</i> not just be a copy of the example – so that people can see what they really look like) • Animation (1) <ul style="list-style-type: none"> - Any suitable use (1 each), eg animated transitions/effects, animated CAD drawing, specific example of animated object. (1) - Any relevant reason, eg to make the presentation more interesting/enjoyable, to highlight particular parts (1) • Sound/ audio (1) <ul style="list-style-type: none"> - Any suitable use (1 each), eg music, recordings of residents talking about their apartments - Any relevant reason, eg to attract attention of people passing by, to add extra information whilst pictures are being viewed, to create a particular type of atmosphere (1). 	[9]
(b)	<ul style="list-style-type: none"> • Select/highlight/click on/add the text/button/graphic • Add/Insert/choose a hyperlink • Choose where it needs to link to 	[3]
6 (c)	Two from: <ul style="list-style-type: none"> • Mouse • Touch screen • Touch pad • Roller ball • Interactive white board/ smart board. 	[2]

Question	Answer	Max Mk
6 (d)	<p>Up to two marks for each point. The second mark for an expansion, usually involving a reason or consequence of the point, eg</p> <p>Multimedia presentation benefits:</p> <ul style="list-style-type: none"> • More interesting/Attracts attention (1) because of the sound/video/animation (1) • More up to date/modern/impressive (1) in comparison with other exhibitors not displaying in this way/would compare badly if he only had leaflets (1) • People will stop and look at a presentation/more likely to pick up a leaflet and walk away (1) giving Mark more opportunity to speak to customers (1) • Multimedia presentation easier/quicker to update (1) because it is electronic/leaflets would need to be printed again (1) • Interactive/menu systems make it easier/quicker to find what you want (1) so more information can be included (1). <p>Leaflets benefits:</p> <ul style="list-style-type: none"> • People can take them away (1) they are unlikely to make a decision at the exhibition/need time to think/might not have time to look through complete presentation (1) • People might pass them on to others (1) so reaching a wider audience than just those attending the exhibition (1) • An easy way of giving contact details (1) so customers can contact him after the exhibition (1) • Can include more text (1) so 'duller'/legal details can be given (1) • Can give lots of leaflets/limited number of people can see presentation at a time (1) so useful if the stall gets busy (1). <p>Why both are needed (1 mark required to award full 7 marks for question)</p> <ul style="list-style-type: none"> • They meet different needs (1) so having both gives impact at the exhibition and something for interested people to take away (1). 	[7]
7 (a)	<p>(i) Mark contents of C5</p> <ul style="list-style-type: none"> • =B5/B2 or =B5/B\$2 or =B5/\$B\$2 (2) <p>1 mark for formula if 1 error only, eg one cell wrong or sign wrong or unnecessary SUM. Do not penalise unnecessary brackets, if the formula would still work.</p>	[2]
	<p>(ii) Formulas correctly entered in C6 to C10 as shown below (2)</p> <p>Emergency alarm =B6/B2 Maintenance =B7/B2 Insurance =B8/B2 Miscellaneous =B9/B2 Management fee =B10/B2</p> <p>At least 1 formula correct = 1 mark Allow Follow through credit for both marks if (i) incorrect but formulas are correct replications of formula in (i). If there is a copy error in C6 but this is correctly copied to C10 = 1 mark</p>	[2]

Question	Answer	Max Mk
	<p>(iii) Two marks for the correct formula entered into cell C11 =SUM(C5:C10) <i>One mark if one error only, eg missing brackets, missing colon, one cell wrong, wrong column, for lack of use of SUM.</i></p>	[2]
7 (b)	<p>Up to three marks for describing the process of entering and replicating the formula, plus up to three marks for recognising and explaining the need to use absolute cell referencing:</p> <ul style="list-style-type: none"> • Enter/Type formula into cell C5 / row 5(1) • Two marks for a correct description of copy and pasting or filling down or dragging down: <ul style="list-style-type: none"> - Copy C5 (1) - Paste into C5 to C10 (1) Select C5 to C10 (1) OR - Choose Fill/ replicate down (from the menu) (1) Drag the bottom right-hand corner of cell C5 (1) - To cell C10 / row 10 / to cover all the cells needed (1) • Two marks for recognising the need for absolute cell referencing <ul style="list-style-type: none"> - Need to put \$ signs / use absolute referencing (1) in front of the (B and) 2 / for the second cell / for cell B2 (1) • One mark for reason: <ul style="list-style-type: none"> - The (B)2 needs to be an absolute (cell) reference - To stop the 2 from changing when it is copied down. 	[6]
7 (c)	<p>(i) Two from</p> <ul style="list-style-type: none"> • Division by zero error • Can't divide by zero • There is nothing/zero in cell B2. 	[2]
(c)	<p>(ii) Two from</p> <ul style="list-style-type: none"> • Trying to add C5 to C10 / the formula is using C5 to C10 • Error messages in C5 to C10 / per apartment charge(s) • Can only add numbers/can't add error messages. 	[2]
	<p>(iii) Up to two marks for one solution. Do not mark more than one method:</p> <ul style="list-style-type: none"> • Alter the formulas so that if B2 is empty the formula won't be calculated/example, eg =IF(B2="", "", B5/B2) / =IF(B2=0, "No data", B5/B2) (2) vague description of an appropriate alteration (1) • Alter the formulas so that if there is an error the formula won't be calculated/example, eg =IF(ISERROR(B5/B2), "", B5/B2) (2) vague description of an appropriate alteration (1) • Use conditional formatting (1) so that the error message is white/example, eg choose Formula is =ISERROR(C5) and choose white text (1) • Enter a default value for the number of apartments (1) suitable example (eg 1 but not 0) (1) use validation to prevent this being deleted (1) – up to 2 marks 	[2]

Question		Answer	Max Mk
8 (a)		Three from: <ul style="list-style-type: none"> • It reaches its destination more quickly/instantly/quicker to.../ quicker because ... (1) so it's possible to get replies/modifications much more quickly (1) • There is no additional cost for each email / cheaper because... (1) • Documents (sent/attached) can be edited (electronically and returned) (1) so there's no need for lots of typing up afterwards (1). • More convenient/easier because ... (1) 	[3]
(b)		One from: <ul style="list-style-type: none"> • Because it can be changed • It is a legal document • Suitable example/implications of a legal document being changed by the recipient. 	[1]
(c)		One from: <ul style="list-style-type: none"> • Fax/Facsimile • Send documents as attachments in a format that cannot be edited/as a graphic/scanned image. 	[1]
(d)	(i)	Viruses.	[1]
	(ii)	Three from: <ul style="list-style-type: none"> • Install/use anti-virus/virus protection software • Keep anti-virus software up to date • Check all incoming emails/attachments (with anti-virus software) • Disable macros in word processing software • Do not open unexpected attachments/attachments from unknown sources. 	[3]

Grade Thresholds

General Certificate of Secondary Education
Applied ICT (Specification Code 1494)
June 2009 Examination Series

Unit Threshold Marks

Unit		Maximum Mark	A*	A	B	C	D	E	F	G	U
4872	Raw	100	81	74	67	60	53	46	39	32	0
	UMS	100	90	80	70	60	50	40	30	20	0
4873	Raw	50	48	43	38	34	29	24	19	14	0
	UMS	100	90	80	70	60	50	40	30	20	0
4874	Raw	50	48	43	38	34	29	24	19	14	0
	UMS	100	90	80	70	60	50	40	30	20	0

Specification Aggregation Results

Overall threshold marks in UMS (i.e. after conversion of raw marks to uniform marks)

	Maximum Mark	A* A*	AA	BB	CC	DD	EE	FF	GG	UU
UMS	300	270	240	210	180	150	120	90	60	0

The cumulative percentage of candidates awarded each grade was as follows:

	A* A*	AA	BB	CC	DD	EE	FF	GG	UU	Total No. of Cands
Cum %	1.3	8.2	27.4	53.5	75	84.5	91	97.6	100	1753

1753 candidates were entered for aggregation this series

For a description of how UMS marks are calculated see:

http://www.ocr.org.uk/learners/ums_results.html

Statistics are correct at the time of publication.

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