GCSE

Applied ICT

GCSE **1494**

Mark Schemes on the Unit

January 2008

1494/MS/R/08J

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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.

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PO Box 5050
Annesley
NOTTINGHAM
NG15 0DL

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

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4872 ICT Knowledge and Understanding

Question		Max Mark
1 (a)	One mark each correct identification: B: Any or all of '*Healthy sandwiches & snacks at your door*' C: Any or all of email address at bottom of card D: The two telephone numbers, with or without the bullets. Must be a *list* so must include both numbers. Must not include any irrelevant text. Not just the bullets on their own.	3
(b)	Two from: • bold (1) email address (1) • (different) font (1) title/business name (1) • (larger) size (1) title/business name (1). *There are no other answers*	4
(c) (i)	Four from: • search for / select graphic. 1 additional mark available for mention of search engine ***NOT brand name*** • copy and paste ***or*** insert (into card) • resize • crop • change wrapping options • move/drag to correct place • copy and paste (to get second image) • flip (horizontally) ***NOT rotate***.	4
(ii)	Two from: • ready-drawn • might not be good at drawing/ better quality than could draw himself. ***NOT vague references to quality*** • quicker, with a reason or comparison • easier, with a reason or comparison • not restricted by copyright (as other images from the Internet) • wide variety to choose from/more choice on Internet • don't need any extra hardware/ software/ internet connection/ comes with the software package.	2
(iii)	One mark for method, one for advantage, eg: • (digital) photograph/camera • can get image of real sandwiches/actual products he sells • scanner • can use (existing) photos of real sandwiches/actual products he sells • drawing package / graphics tablet • can get exactly what he wants/design own image • other Internet sources / the Internet • wider range of images (than just clip art libraries).	2

Question		Max Mark
2 (a)	Spreadsheet (CORRECT ANSWER ONLY).	**1**
(b)	Two from: • use of formulas/will do calculations • inbuilt functions • automatic update when data changed • can replicate/copy formulas down/across • can produce charts/graphs (to analyse sales figures) • can sort… if an appropriate use is suggested • can use a formula for the date • can format cells to automatically add £ signs • can have multiple sheets.	**2**
(c) (i)	(=)C4-D4 (2 marks) 1 mark for (=)SUM(C4-D4).	**2**
(ii)	Up to 3 marks from one of: • select/mark/highlight • E4 to E10 • Fill down /replicate *OR* • click into E4 } ***OR*** drag the • drag corner of cell } corner of cell (fill handle) down } E4 down • to E10 } (2 marks) *OR* • copy E4 • select/mark/highlight E5 to E10 • paste.	**3**
(iii)	Two from: • Because the cell references need to change • as the formula is copied down the column • examples – eg in row 4 it is C4-D4 but in row 5 it needs to be C5-D5.	**2**
(d) (i)	D7 (CORRECT ANSWER ONLY).	**1**
(ii)	E7, F7 and F12 (NO OTHER ANSWER ACCEPTED) 1 mark each correct cell. ***Max 2 marks if 4 answers given*** ***Max 1 mark if 5 answers given*** ***No marks if more than 5 answers given.***	**3**

Question		Max Mark
(e)	Five from: • use separate sheets for each day (1) and each member of staff (1) • create a summary sheet • Use formulas to calculate totals/ other statistics for each member of staff • use formulas (1) to copy totals from each sheet to summary sheet (1) • select/mark/highlight data on summary sheet • create chart (up to 2 marks for descriptions of this process, eg choose chart tool, choose type of chart, add labels…) • copy and paste chart/save chart and import to WP/DTP/ Presentation software • copy and paste summary table to import to WP • Add explanation/ additional text to complete the report. ***Max 3 marks if no mention of multiple sheets or summary sheet.***	**5**
3 (a)	Three from: • easy to update/no crossings out etc • can print out lists – must at least imply multiple lists, not just 'can print out' • can sort data easily/quickly • can view data in different ways, eg tables, forms, reports… • can search data easily/quickly • paper can get easily misplaced / put in the wrong place ***NOT lost.*** *Do not award this the other way round – it is not enough to say 'computer data can be easily found'* • can back up data to prevent loss *the ability to back up is the key point here* • paper can get easily torn/defaced • can export data to other packages (eg mail merge) • can protect data from unauthorised access *need more than 'more secure' – unprotected data is much less secure than locked cabinets* • can store large amount of data in small space / takes up less space • can easily transfer to/access from other computers / can email database • can access data remotely / from variety of places • can share data.	**3**
(b)	Three from: • a check (on input data) • example of a type of check, eg range check, length check • to see that the data is reasonable/obeys set rules • to minimise data entry errors (*NOT* prevent **all** errors) • example of a serious effect if data were incorrect.	**3**

Question		Max Mark
(c)	Three from: • must register • data must be obtained/used fairly and lawfully • must show people their data (if they ask) • must keep data accurate/up to date • must not keep data longer than necessary • must keep data secure/keep backups • must prevent unauthorised people seeing it / suitable methods eg firewall, passwords • must not use data for anything other than registered purpose • data must be adequate/relevant/not excessive • must not pass data to other countries without adequate DP legislation • must not pass data onto other companies without permission.	**3**
(d)	One mark each valid point, plus a mark for an expansion of a point, up to maximum of 5, eg: • to restrict the use of/ protects **personal** data (1) to protect people's privacy/ stop other people (who shouldn't) seeing your **personal** data (1) • to restrict the passing on of personal data (1) because it is easier to copy/pass on data when stored on computer (1) • because of the increased use of ICT • because more personal data was being kept (by organisations) • because people didn't know who stored data about them (1) or what was stored about them (1) • because it is easy for data to be mis-typed into a computer (1) so more problems were occurring with inaccurate data (1) • because it is so easy to store electronic data (1) it was feared that many organisations were keeping personal data they didn't need (1) • because (without adequate protection) it is easy for electronic data to be lost (1), which could have serious consequences (1) • because (without adequate protection) it is easy for unauthorised people to see electronic data	**5**
4 (a)	One mark for any answer indicating an understanding that hardware is the physical equipment, something that you can touch etc. This may be clarified by an example but an example alone is insufficient for the mark.	**1**
	One mark for any answer indicating an understanding that software is the programs/applications that contain the instructions for the computer. This may be clarified by an example but an example alone is insufficient for the mark.	**1**

<table>
<tr><th>Question</th><th></th><th>Max Mark</th></tr>
<tr><td>(b)</td><td>
<table>
<tr><th>Input</th><th>Output</th><th>Processing</th><th>Storage</th></tr>
<tr><td></td><td></td><td>✓</td><td></td></tr>
<tr><td></td><td></td><td></td><td>✓</td></tr>
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<tr><td></td><td>✓</td><td></td><td></td></tr>
</table>
</td><td>8</td></tr>
<tr><td>(c) (i)</td><td>One from:
• an input/output port
• to connect/plug in other devices/ hardware.</td><td>1</td></tr>
<tr><td>(ii)</td><td>One mark for a peripheral device that could be connected via USB, eg mouse, printer, scanner, additional backing storage, camera, PDA cradle…</td><td>1</td></tr>
<tr><td>(iii)</td><td>• so that more than one device can be connected at the same time/ because there are so many different devices that need to be connected.</td><td>1</td></tr>
<tr><td>5 (a)</td><td>• pages/collection of (multimedia) information
• on/available from the Internet / on line</td><td>2</td></tr>
<tr><td>(b)</td><td>Two from:
• don’t have printing costs
• don’t have to distribute leaflets
• can update at any time/easily/quickly/without reprinting
• make business seem up to date
• can include more detailed information than a leaflet
• sound and video make it more interesting/modern
• some people only look for goods/services on the Internet
• can reach an unknown audience / not restricted to where leaflets have been distributed
• could take orders/sell goods via the website
• Reduces paper use / more environmentally friendly.</td><td>2</td></tr>
<tr><td>(c)</td><td>Two from:
• modem/router
• telephone line
• connection software
• web browsing software
• web address/URL/name of website
• ISP.</td><td>2</td></tr>
</table>

Question		Max Mark
(d)	Two from: • people likely to see a leaflet/suitable example, eg can give it directly to people, can put it up as a poster • to target people in the local area • might use/need a leaflet to advertise the website/give the URL • only see a website if they look for it / need to know the website is there • not everyone has access to computer/Internet / are computer literate.	**2**
(e) (i)	Two from: • first page people see • to introduce the site/company • to persuade people to look at more/ attract people • to provide links to the rest of the site.	**2**
(ii)	Two from: • animated/ scrolling/ moving (text/graphics)/ marquees • video/movies • sound/music • hyperlinks/buttons/navigation bar/ hotspots (to other pages) • counter • email button/link • frames • tables • rollovers.	**2**

Question		Max Mark
6 (a)	One mark each point, with an additional mark for an expansion of a point (usually a reason or a consequence) up to a maximum of 8, eg: • laptop more likely to have printer to print out quotes etc (1) to leave with customers/ get contracts to sign immediately (1) • can use GPS on a PDA (1) to help him find places quickly/ quicker than using a map/safer than using a map/ don't have to remember directions (1) • laptop computer more expensive than PDA (1) and may not be necessary as PDA can do what is needed/ he doesn't need to do a lot or work on it/ already has desktop computer in the office (1) • laptop computer has faster processor than PDA (1) so can perform functions the PDA cannot (1) • laptop computer has more storage space than PDA (1) so can store more data/ run more programs at once (1) • laptop computer has full size keyboard (1) making data entry easier/more convenient/faster (1) • laptop computer has larger screen (1) making it easier to show clients (1) • PDA physically smaller/lighter (1) so easier/ more convenient to carry around (1) • PDA doesn't have to wait to load OS/ ready as soon as it is switched on (1) so quicker to use to jot down short notes (1).	8
(b)	Six from: • can search for products (1) to find/compare prices/ specifications (easily/quickly) (1) • there are websites that compare prices (from different suppliers) (1) to make it easier to get the best price (1) • some company sites have an option to allow easy comparison of specifications/prices (using a **compare** button) (1) to help decide on the best model (1) • sites are secure from unauthorised access/provide protection from hackers (1) so credit card details are protected (1) • products often cheaper online (1) especially from auction sites (1) • more convenient (1) because products delivered/ don't have to visit store/ can shop at any time (1) • easy to see other people's opinions about different products (1) by email/ bulletin boards/ comments/ star ratings on sites (1) • wider range of products available (1) because not limited to local/known shops/suppliers (1). • Can view products from many different stores (1) without having to physically visit them all / quickly (1)	6

Question		Max Mark
7 (a)	Up to two marks from: • a copy of a file/files/data • on a different medium • stored in a different place. Up to two marks from: • in case original lost • in case original damaged/corrupted • so that the original can be retrieved / you have another copy (to use).	3
(b)	One mark for any removable backing storage device up to maximum of 2, eg: • external/removable hard disk drive • flash memory device/ memory stick/ pen drive/ USB pen • MP3 player • CD drive/writer • PDA • mobile phone • digital camera • magnetic tape drive • online server.	2

Question		Max Mark
(c)	Up to **two** marks for each point of comparison, eg: • (access) speed • capacity • physical size / suitability for storage • expense • robustness • convenience. **One** mark for a simple correct comparison, which might be implied. For example, 'HDD has large capacity, DVD has large capacity' can be taken as implying that the third item does not. 'not a lot can be stored on a floppy disk' implies that more can be stored on the other two media. 'HDD has a large capacity, DVD has a large capacity, USB pen has a large capacity' is not making any comparison and is worth 0 marks. The comparison may just compare two of the devices. **One additional** mark for an expansion, which may be a second comparison or a consequence. For example, 'hard disk drive has the largest capacity, DVD has large capacity but not as much as the hard disk, floppy disk has a very small capacity' gives an additional comparison, so is worth both marks. 'HDD has a very large capacity so you could back up your whole drive' gives an expansion of the comparison, so is also worth both marks. Other examples of 2 mark answers: • DVDs are very small in size so can be stored easily • DVDs are quite cheap so you could easily have one for each day of the week One mark available for a reasoned conclusion where the reason has not already been awarded a mark. This is likely to be an assessment of the relative importance of different features. Eg 'Although it is a more expensive option I would recommend a portable hard drive because it is the only way you could back up your whole hard disk, which is the most important thing' could be awarded a mark in addition to marks for cost and storage capacity already awarded. No marks for a conclusion that recommends a floppy disk drive.	**6**
(d)	Two from: • away from computer/different site • must be safe from damage/ example eg from fire, flood, magnetism, humidity • must be safe from theft/ unauthorised access/locked up.	**2**

Grade Thresholds

General Certificate of Secondary Education
Applied ICT (Specification Code 1494)
January 2008 Examination Series

Unit Threshold Marks

Unit		Maximum Mark	A*	A	B	C	D	E	F	G	U
4872	Raw	100	81	72	63	55	47	39	32	25	0
	UMS	50	45	40	35	30	25	20	15	10	0
4873	Raw	50	47	42	37	32	27	22	17	12	0
	UMS	50	45	40	35	30	25	20	15	10	0
4874	Raw	50	47	42	37	32	27	22	17	12	0
	UMS	50	45	40	35	30	25	20	15	10	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
Raw	300	270	240	210	180	150	120	90	60	0

	Maximum Mark	A* A*	AA	BB	CC	DD	EE	FF	GG	UU
UMS	100	90	80	70	60	50	40	30	20	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 %	0.0	3.6	21.6	67.5	93.3	97.4	99.5	100.0	100.0	215

215 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.

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

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Facsimile: 01223 552553

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