GCSE

Applied ICT

GCSE 1494

Mark Schemes on the Unit

June 2007

OCR (Oxford, Cambridge and RSA Examinations) is a unitary awarding body, established by the University of Cambridge Local Examinations Syndicate and the RSA Examinations Board in January 1998. OCR provides a full range of GCSE, A level, GNVQ, Key Skills and other qualifications for schools and colleges in the United Kingdom, including those previously provided by MEG and OCEAC. It is also responsible for developing new syllabuses to meet national requirements and the needs of students and teachers.

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 2007

Any enquiries about publications should be addressed to:

OCR Publications
PO Box 5050
Annesley
NOTTINGHAM
NG15 0DL

Telephone: 0870 870 6622
Facsimile: 0870 870 6621
E-mail: publications@ocr.org.uk

CONTENTS

Applied GCSE ICT (1494)

MARK SCHEME FOR THE UNIT

Mark Scheme 4872
June 2007

INSTRUCTIONS ON MARKING SCRIPTS

All page references relate to the Instructions to Examiner booklet (revised June 2006)

For many question papers there will also be subject or paper specific instructions which supplement these general instructions. The paper specific instructions follow these generic ones.

1   Before the Standardisation Meeting

Before the Standardisation Meeting you must mark a selection of at least 10 scripts. The selection should be drawn from several Centres. The preliminary marking should be carried out in pencil in strict accordance with the mark scheme. In order to help identify any marking issues which might subsequently be encountered in carrying out your duties, **the marked scripts must be brought to the meeting.** *(Section 5c, page 6)*

2   After the standardisation meeting

a)   Scripts must be marked in **red,** including those initially marked in pencil for the Standardisation Meeting.

b)   All scripts must be marked in accordance with the version of the mark scheme agreed at the Standardisation Meeting.

c)   **Annotation of scripts**

The purpose of annotation is to enable examiners to indicate clearly where a mark is earned or why it has not been awarded. Annotation can, therefore, help examiners, checkers, and those remarking scripts to understand how the script has been marked.

Annotation consists of:

- the use of ticks and crosses against responses to show where marks have been earned or not earned;
- the use of specific words or phrases as agreed at standardisation and as contained in the final mark scheme either to confirm why a mark has been earned or indicate why a mark has not been earned (e.g. indicate an omission);
- the use of standard abbreviations e.g. for follow through, special case etc

Scripts may be returned to Centres. Therefore, any comments should be kept to a minimum and should always be specifically related to the award of a mark or marks and be taken (if appropriate) from statements in the mark scheme. General comments on a candidate's work must be avoided.

Where annotations are put onto the candidates' script evidence, it should normally be recorded in the body of the answer or in the margin immediately adjacent to the point where the decision is made to award or not award the mark.

d)   **Recording of marking: the scripts**

     i)   Marked scripts must give a clear indication of how marks have been awarded as instructed in the mark scheme.

     ii)   All numerical marks for responses to part questions should be recorded un-ringed in the right-hand margin. The total for each question (or, in specified cases, for each page or section) should be shown as a single ringed mark in the right-hand marking at the end of the question.

     iii)   The ringed totals should be transferred to the front page of the script, where they should be totalled.

     iv)   Every page of a script on which the candidate has made a response should show evidence that the work has been seen.

     v)   Every blank page should be crossed through to indicate that it has been seen.

(Section 8a – d, page 7)

e)   **Handling of unexpected answers**

- The standardisation meeting will include a discussion of marking issues, including:

- a full consideration of the mark scheme with the objective of achieving a clear and common understanding of the range of acceptable responses and the marks appropriate to them, and comparable marking standards for optional questions;

- the handling of unexpected, yet acceptable answers.

(Section 6a, bullet point 5, page 6)

There will be times when you may not be clear how the mark scheme should be applied to a particular response. In these circumstances, a telephone call to the Team Leader should produce a speedy resolution to the problem.

(Appendix 5, para 19, page 25)

Max mark 100. 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		Max Mark
1 (a)	1 mark each correct row. 0 marks if more than 1 tick in a row.	**[5]**

Device	Input device (✓)	Output device (✓)	Backing storage device (✓)
Printer		✓	
DVD writer			✓
Hard disk drive			✓
Keyboard	✓		
Monitor		✓	
Mouse	✓		

Question		Max Mark
1 (b)	Up to 2 marks for each description. 1 mark for a vague answer indicating some understanding: RAM: • memory/storage • used for programs and data currently in use • internal/volatile/ lost when switched off /temporary. *Nothing to do with speed* *Must be a function not an effect* Processor: • carries out all the calculations • carries out all the decisions • follows the instructions in the programs/software • controls data flow. *Not 'to process data'* *Must be a function not an effect*	**[4]**
(c)	Three from: • can share peripherals/printer(s) • can share data/example • can communicate/send messages/data/internal email *internal must be at least implied, eg 'send mail to each other'* • can share an Internet connection • (sales) staff can access own files from any computer • can backup files easily/centrally • can install/update software more easily/centrally • work can be monitored. *Not 'share software'* *Not 'only need to buy or install 1 copy of software'*	**[3]**
(d) (i)	Two from: • install anti-virus/virus protection software *must imply software/program* • keep anti-virus (software) up to date • run a virus scan regularly • check all incoming files/emails (must at least imply checking with anti-virus software) • ban downloading of files from untrusted sources • have rules about downloading unexpected/unknown downloads. *Nothing to do with backing up* *Not 'virus software'*	**[2]**

Question		Max Mark
(ii)	1 mark for problem • unauthorised access/hackers • spyware. up to 2 for prevention • install firewall • install spyware software (for spyware only) • ban installation of unauthorised software (for spyware only) • password protect files (must specify files) • encrypt files • use a secure server. *Not 'secure sites'*	**[3]**

Question			Max Mark
2 (a)		1 mark each correct label (circling not necessary except for bullet, but must clearly show correct feature) • italic text - any or all of **Midlands Branch** • a hyperlink - **Used Cars** or **New Cars** or both, but not if anything else is included • a bullet - any or all of the three bullets, not the text. *MUST be circled* • text in a footer - any or all of the footer text.	**[4]**
(b)		Two from: • because underlining indicates a hyperlink • the title is not a hyperlink • could be confusing. e.g. for 2 marks: because someone might think it is a hyperlink	**[2]**
(c)		1 mark each way: • graphics/pictures/photographs/images/clip art • sound • animation/video.	**[3]**
(d)		1 mark for a point, 2 marks if an expansion (usually a reason, cause or consequence) is given e.g. Change the hyperlinks to buttons (1) to make it obvious that you can click on them (1) Add instructions/add a line telling you to click on the option you want (1) because some people might not know that underlined text can be clicked on (1).	**[2]**
(e) (i)		1 from: • you touch it to make your options/instead of a mouse • an input and output device.	**[1]**
	(ii)	Two advantages from e.g.: • easier for people who are not used to computers/some people find mice hard to control (at first) • just have to touch the option you want • looks tidier because no keyboards/mice in the showroom/don't need table for a mouse/takes up less space (because no keyboards/mice in showroom) • less easily broken/tampered with/stolen than mice/keyboards • mice on cables could cause tripping hazard. *Not 'more interactive' or any other advantage of an interactive system. Must refer to the touch screen* *Not just 'easier to use' accept user friendly* *Not just 'don't need mouse/keyboard'*	**[2]**

Question			Max Mark
3 (a)		Up to 2 marks for each method:	**[4]**
		• validation	
		• automatic check to make sure data is reasonable	
		• specific example of validation, e.g. date ≤today	
		• input mask	
		• to show the format needed	
		• drop down boxes	
		• to reduce amount of typing/choose what you want	
		• automatic/default entry	
		• date field = today/address 3 field = Midshire	
		• verification	
		• proof reading	
		• check against forms/originals, not just 'check it'	
		• double entry	
		• print out/send copies of entries	
		• ask customer to check.	
		Nothing to do with spell check	
		Not data type except under validation	
(b)		Two points from:	**[2]**
		• title/example, e.g. 'Mr or Mrs'	
		• initial	
		• post code	
		Not country or address 4 or telephone number	
(c)		1 mark each point:	**[6]**
		• use search/find/queryfilter (tool)	
		• date (of purchase) (*must imply search on field*)	
		• less than or equal to 31/12/06 *OR* less than/before 01/01/07	
		• model (purchased) (*must imply search on field*)	
		• starts/begins with/contains/includes: 'TC4' *OR* 'TC4*'	
		• select fields to display, at least first name and last name	
		0 for simply rewording the question. 'less than' and date can be given in any form	

Question		Max Mark
(d)	Five from: • write/type letter using word processor/DTP • make it into a mailmerge file/choose mailmerge option/wizard • save search results *OR* set up query in merge • attach letter/file to data file/search results • add fill points 'fields' to letter – may be by a clear example • choose merge option/identify mailmerge • save/print letters *OR* • set up report • in database software • add text • add fields/fill points • link to/run query • run report • print/save report.	**[5]**
(e)	Five valid points e.g.: • more than one table linked/related *Accept database instead of table* • by a key field • could have a table of customers • Amir could have a table of models/cars • could view/search for particular details of cars purchased • Amir could have a table of purchases • example of a valid field to link • could store/view/search for more than one purchase per customer/old purchases • avoids duplication (1) which reduces errors (1) (*not on its own*) • example, eg model details don't need to be entered for every customer/customer contact details don't need to be entered for every purchase • easier to keep up to date/only need to update data once/example • allows queries/reports on more than one table • can allow different users access to different parts of the database • can see all the data on a form/subform. *Max 3 marks for naming relevant tables* *NOT 'if you update/change something on one table it will change on all the rest'* *Must be benefit of multiple tables NOT of queries/reports/forms*	**[5]**

Question		Max Mark
4 **(a)**	**Spreadsheet CAO**	**[1]**
(b)	Three from: • once the sheet is set up (you only have to enter the details and) the calculations are carried out automatically • quotations/data can be printed out for the customer • quotations/data can be saved (if the customer is undecided) • it is easy to change/model and see the effects/totals are recalculated automatically when options are changed • sheet shows you all the options as well as the final price • can use different sheets to show different options/quotes • quick to set up/formulas can be replicated. *Nothing to do with accuracy*	**[3]**
(c)	Four from: • filenames need to be sensible/indicate what the file contains • include reference to the date • include reference to the customer • suitable example e.g. Quote070608Brown • use of folders/directories • example e.g. folders for quotes/dates • example of subdirectories e.g. quotes within dates • delete files more than (e.g.) 6 months old • use search facility to find contents/filename • view files in date order (other sensible order) • view files in details view.	**[4]**

Question		Max Mark
5 (a) (i)	1 for expansion/description, 1 for use: • CAD = Computer Aided Design/using computer (software) to draw/create designs • to design the cars.	**[2]**
(ii)	1 for expansion/description, 1 for use: • CAM = Computer Aided Manufacture/automatic manufacture/machines/manufacturing/machines controlled by computer/creating objects from CAD drawings • to manufacture/make the cars.	**[2]**
(b)	Up to 3 marks for advantages e.g. • machines set up/objects created automatically from drawings • increased productivity/takes less time to make a car • drawings easily altered • designs can be viewed on 3-d/from any angle • library of designs/components • saves space (storing designs) • modelling/ability to test drawings before manufacture • more accurate measurements *NOT* just 'more accurate' • quality more consistent/reliable • easier to manufacture to customer requirements • quick/easy to reprogram for new models • cheaper to manufacture/in the long term/less labour needed • safer • machines work without a break *NOT* 24/7 • able to collaborate/email designs. *Easier, quicker, cheaper, more accurate all need at least some expansion or comparison* *NOT printing designs* Up to 2 marks for disadvantages: • expensive to set up/buy/maintain/repair (equipment) • need different/more skills to use/set up/staff need retraining • loss of jobs *NOT* 'all workers will be sacked'.	**[5]**

Question		Max Mark
6 (a) (i)	Two from: • use of keyboards/keys/mice/typing *NOT* use of computer • over a long period of time/without a break/repeatedly/quickly/without wrist support *NOT* 'a lot'	**[2]**
(ii)	Two from: • take regular breaks/vary work • use wrist rest on keyboard/mouse • use tilted/ergonomic keyboard • automated input • speech recognition software • tracker ball/ergonomic mouse. *For breaks accept specific times, unless clearly ridiculous*	**[2]**
(b)	Two from: • adjustable (height) *NOT* right height • (adjustable) backrest • five castors • arm rest • buy footrests as well.	**[2]**

Question		Max Mark
7 (a)		**[5]**

Statement	True (✓)	False (✓)
Customers can access the website from an Internet Café	✓	
Customers need broadband to access the website		✓
Customers need to have an email address to access the website		✓
The website is part of the World Wide Web	✓	
The website will load more quickly with broadband	✓	

Question		Max Mark
(b) (i)	One from: • follow a link (from another site/document) • use a search engine • access from favourites/bookmarks • have a shortcut on the desktop • go though history. *NOT a brand name or a URL*	**[1]**
(ii)	One from: • quicker/easier to click (than type) • URLs can be long • easy to mis-type a URL • hard to remember URL • might not know the URL.	**[1]**

Question		Max Mark
(c)	One mark for a point, two if the point is expanded (usually with a cause or consequence) e.g.: • most companies have websites (1) so would look bad if SM didn't have one (1) • customers can search from home/at any time (1) so SM might attract customers from a wider area (1) but customers not likely to buy a car from a long way from home (1) • more customers likely to find out about SM (1) because they might be searching for cars for sale (1) • many customers will start by looking on the www (1) so SM would lose customers if they didn't have a website (1) • website could allow customers to send enquiries/contact details provided (1) • website could allow ordering on line (1) • multimedia (1) can be used to attract customers (1) • good way of advertising (1) • but most customers would want to come and try a car out (1) • time/cost to create/update (1) • expertise to create/update (1) • mention consequence of updating and creating (1) • if website not up to date customers could get frustrated/find cars that are not available (1) which could give SM a bad reputation (1) • has to be secure if company is going to accept online payments (1). *Max 6 for only advantages or disadvantages* *1 mark available for a reasoned conclusion not already awarded*	**[8]**

Question		Max Mark
8 (a)	Five from: • it is saved • virus checked • passes through/checked by firewall • encrypted (by Jas's computer) / decrypted (by Ken's computer) • message sent via modem/router/telephone wires/microwaves • header created/address encoded • message divided into packets • packets sent by different routes • to (Jas's) ISP/internet provider / email provider • via intermediate computers/servers • to recipient's (Ken's) ISP / internet provider / email provider • message reassembled • Ken downloads mail from ISP • sorted by spam filter.	**[5]**
(b)	Four from: • unwanted/junk email/message • advertising items/example • often offensive • takes up disk/storage space *NOT* memory • wastes time searching through inbox • can lose/delete genuine mail in error • automatic spam filters can filter out genuine mail • fills up inbox • sent in bulk/automatically • could contain viruses *NOT* does contain viruses or causes viruses • 'spam attack' large amounts of spam can slow down the server/receipt of emails *NOT* slows down the computer.	**[4]**
		100

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

Unit Threshold Marks

Unit		Maximum Mark	A*	A	B	C	D	E	F	G	U
4872	**Raw**	**100**	**77**	**69**	**61**	**54**	**46**	**39**	**32**	**25**	**0**
	UMS	**100**	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**0**
4873	**Raw**	**50**	**47**	**42**	**37**	**32**	**27**	**22**	**17**	**12**	**0**
	UMS	**100**	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**0**
4874	**Raw**	**50**	**47**	**42**	**37**	**32**	**27**	**22**	**17**	**12**	**0**
	UMS	**100**	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**0**

Entry Information

Unit	Total Entry
4872	**4936**
4873	**4972**
4874	**5374**

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 %	**0.8**	**7.0**	**23.5**	**45.1**	**64.8**	**78.9**	**88.7**	**95.9**	**100.0**

5847 candidates were entered for aggregation this series

For a description of how UMS marks are calculated see;
http://www.ocr.org.uk/exam_system/understand_ums.html

Statistics are correct at the time of publication