## GCSE

## Applied ICT

GCSE 1494

## Mark Schemes for the Units

## January 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
Annersley
NOTTINGHAM
NG15 0DL
Telephone: 08708706622
Facsimile: $\quad 08708706621$
E-mail: publications@ocr.org.uk

## CONTENTS

## Applied GCSE ICT (1494)

## MARK SCHEME ON THE UNITS

| Unit | Content | Page |
| :--- | :--- | :---: |
| 4872 | ICT Knowledge and Understanding | 1 |
| * | Grade Thresholds | 15 |

## Mark Scheme 4872 January 2007

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 |
| :---: | :---: | :---: | :---: |
| 1 (a) | Scanner. CAO | 7.2.2(i) | [1] |
| (b) | One from: <br> - keyboard <br> - mouse <br> - $\quad$ scanner (if not given for part (a)) | 7.2.2(i) | [1] |
| (c) | (Laser) printer. CAO | 7.2.2(ii) | [1] |
| (d) | One from: <br> - speakers <br> - monitor <br> - (laser) printer (if not given for part (c)) | 7.2.2(iii) | [1] |
| (e) | Processor. CAO | 7.2.2(ii) | [1] |
| (f) | - hard disk (drive) <br> - $\quad C D$ (rewriter/drive) | 7.2.2(v) | [2] |


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


| (d) | Three from: <br> - must register <br> - data subjects must consent <br> - must show people their data (if they ask) <br> - must keep personal data accurate/up to date <br> - must not keep data longer than necessary <br> - must keep data secure/safe from loss/prevent unauthorised people seeing it <br> - must not use data for anything else (other than registered purpose) <br> - data must be adequate/relevant/not excessive <br> - must not pass data to countries without adequate DP legislation. Accept outside EU. <br> - must not pass data onto other companies without permission <br> - NOT 'password/encryption' on its own as this is not a requirement of the Act | $\begin{aligned} & \hline 8.2 .4(\mathrm{i}) \\ & \text { 6.2.4(viii) } \end{aligned}$ | [3] |
| :---: | :---: | :---: | :---: |


| Question No. |  | Grid Ref. | Max <br> Mark |
| :---: | :---: | :---: | :---: |
| 3 (a) |  | 8.2.1(iii) | [1] |
|  |  |  |  |
|  | DVDs are only used for films |  |  |
|  | DVDs and CDs store data magnetically |  |  |
| (b) | 2 from: <br> - higher resolution/clearer screen. NOT better quality <br> - need to see graphics clearly <br> - smaller footprint/thin <br> - might not have much space on desk <br> - doesn't flicker <br> - she needs to look at it for long periods of time <br> - reduced glare <br> - reduces eye strain | 7.2.2(iii) | [2] |
| (c) | Three from: <br> - more temporary/internal memory <br> - DTP/photographs/pictures/video take up more memory/bigger <br> - her documents might contain a lot of photos, etc./may be very large <br> - allows her to have more programs open at once <br> - example of programs she might want open at once, eg DTP, graphics, scanner <br> - her computer will work more quickly/too slow if not enough RAM <br> - would waste time if she was waiting for her computer all the time <br> Must be immediate use NOT storage | 7.2.2(v) | [3] |
| (d) | One mark for device, one for difference, one for relevance from: <br> - hard disk drive <br> - (much) bigger/stores more data <br> - DTP/graphics/video files can be very large <br> - processor <br> - faster <br> - graphics/DTP/video need faster processor <br> - printer <br> - colour. NOT faster or better quality <br> - eg leaflets may need to be in colour <br> - video/graphics card <br> - faster/more powerful/more RAM <br> - to process graphics more quickly <br> - sound card <br> - better <br> - to hear sounds from website more accurately could be other answers, but not new components, must be higher specification than originals. <br> NOT CD/DVD, Monitor or RAM | $\begin{array}{\|l} \hline 7.2 .2(i i) \\ 7.2 .2(i i i) \\ 7.7 .7(\mathrm{v}) \end{array}$ | [3] |


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


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


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


| Question No. |  | Grid Ref. | Max Mark |
| :---: | :---: | :---: | :---: |
| 6 (c) | 1 mark each source, 2 for explanation, eg: <br> - Internet/websites(1) <br> - for maps (1) to show how to get to hotel (1) more accurate/quicker than drawing own (1) <br> wide variety of images <br> - drawing package (1) <br> - to draw maps (1) to show how to get to hotel (1) <br> - to draw plans of hotel (1) to show layout (1) <br> - to create/draw logo for hotel (1) <br> - allows original drawings (1) <br> - $\quad$ scanner $(1)$ <br> - 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) <br> - $\quad$ Clip Art/disks of pictures (1) <br> - for symbols (1) eg scissors to show where to cut off a coupon/other example (1) <br> - ready-drawn/quick/easy to use (1) <br> - to add humour/interest (1) | $\begin{aligned} & \text { 8.2.1(i) } \\ & \text { 6.2.1a } \end{aligned}$ | [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 <br> Allow other (incorrect) notation, eg 5F, or arrows to correct cells, for this part only. <br> 1 mark for at least one. 2 for the exact answer. | 6.2.1b | [2] |
| (b) | (=)B2*E2(2) <br> 1 mark if just 1 cell incorrect <br> 1 mark for an idea that has some merit but would not work, eg sum $=(B 2 * E 2)$ | 6.2.1b | [2] |
| (c) | (=) sum(F2:F8) or sum(F2:F9) (2) <br> 1 mark for any other formula that would work <br> 1 mark for an idea that has some merit but would not work, eg sum(F2:F7) or sum = (F2:F8) | 6.2.1b | [2] |
| (d) | 1 mark each feature, 1 each cell: <br> - merge/ $\quad$ remove border <br> - fill/shade E7 or E8 <br> - text any A, C or D or row 1 <br> - centre A1, D1, E1, F1 <br> - centre vertical A1, D1, E1, F1 <br> - wrap (text) E1 <br> - row height row 1 <br> - currency/2dp E2, E3, E5, any from column F <br> - Odp <br> B2, B5 <br> Accept any answer which could be a valid formatting feature for the cell(s) given. Only accept alignment once. | 6.2.1b | [2] |
| (e) | 2 from: <br> - can print off a copy for the customer to take away <br> - can email sheet to customer <br> - can see the effect of changes (instantly) <br> - can save completed sheets <br> - can be imported to other programs (for quotes, letters) <br> - quicker than doing each calculation separately/just have to type in the choices | 6.2.1b | [2] |


| Question No. |  | Grid Ref. | Max Mark |
| :---: | :---: | :---: | :---: |
| 7 (f) | 6 from: <br> copy/type in/add table of options/prices <br> to another sheet/bottom of sheet/suitable cells <br> set validation checks for choices/example/ <br> column D <br> all of D2, D3, D5, D7 and D8 specified <br> allowing values from lists in table <br> to give drop/down lists/stop Rob having to type in the options <br> pick out prices using a formula <br> so that he does not have to lookup/type in prices manually <br> example of IF or LOOKUP formula that would work ( 2 marks for complete formula, 1 for basic idea) <br> location of IF/LOOKUP formula, eg E2, E3, E5 <br> ( 1 mark for 1 or 2 cells, 2 marks for all 3 ) <br> use IF(D7 "Yes", (reference to 250),0) (2 marks for complete formula, 1 for basic idea or formula with the value 250) <br> in F7 <br> use IF(D8="Yes", (reference to 150 ), O) (2 marks for complete formula, 1 for basic idea or formula with the value 150) <br> in F8 <br> put VAT rate in a separate cell <br> change the formula in F11 to refer to separate cell ( 2 marks for complete formula ( $=\mathrm{F} 10^{*} \mathrm{G} 1$, for example, if previously said to put VAT into G1), 1 mark for basic idea.) <br> lock/protect cells with formulas/labels add default values (for most common options) so less to type each time. | 6.2.1b | [6] |


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


| Question No. |  | Grid Ref. | Max Mark |
| :---: | :---: | :---: | :---: |
| 8 (b) | 1 mark each advantage/disadvantage with up to 1 additional mark for an explanation (usually giving a consequence or cause). <br> 1 additional mark available for a reasoned conclusion not already awarded. <br> Max 4 for advantages or disadvantages only. eg: <br> advantages <br> - many people now look on the web for accommodation/holidays (1) so without a website people might not find out about Blakey's <br> Lodge/people are more likely to find out about Blakey's Lodge (1) <br> booking online is convenient (1) so people are more likely to book (1) <br> reduces need to send out brochures (1) which saves time/cost/is more convenient (1) <br> you can put a lot of information on a website (1) so might reduce telephone enquiries (1) <br> can have links to your website from other (local) <br> sites (1) so more chance of people finding out about the hotel (1) <br> inclusion of (eg) video allows people better idea of what the hotel is like (1) <br> easier to update website (than brochures) (1) <br> because don't have to print them (1) <br> cheaper than printing out brochures (1) <br> disadvantages <br> - need more expertise to create/maintain website (1) especially if including on-line booking (1) <br> takes time to set up/maintain website (1) <br> need to pay for web space (1) and on-line booking agent (if used) (1) <br> security risk of online booking (1) need encryption (1) <br> if Internet connection lost/errors on site could lose some bookings (1) which would give bad reputation (1) <br> conclusions 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) | 8.2.1(i) | [6] |


| Question No. |  | Grid Ref. | Max Mark |
| :---: | :---: | :---: | :---: |
| 9 | 1 mark for a straightforward point, up to 2 for an explanation (usually involving a cause or a consequence) eg: <br> need a firewall (1) to prevent hackers accessing the computer system (not just files) (1) because broadband is always connected (1) <br> - 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) <br> need to set access rights (1) so areas/files cannot be accessed (1) or altered/erased (1) if hackers access the network (1) <br> - need to use encryption (1) for files being sent by email (1) so that without the correct key they can't be understood (1) <br> - need digital signatures on emails (1) | $\begin{aligned} & \text { 6.2.4(ii) } \\ & \text { 8.2.1(ii) } \end{aligned}$ | [6] |

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

Unit Threshold Marks

| Unit |  | Maximum | A* | A | B | C | D | E | 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 | $\mathbf{A}^{*} \mathbf{A}^{*}$ | 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

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

## OCR Customer Contact Centre

## (General Qualifications)

Telephone: 01223553998
Facsimile: 01223552627
Email: helpdesk@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: 01223552552
Facsimile: 01223552553

