

ASSESSMENT and QUALIFICATIONS ALLIANCE

Mark scheme June 2003

GCSE

Information and Communication Technology A

Full Course 3521 Higher

Copyright © 2003 AQA and its licensors. All rights reserved.

The Assessment and Qualifications Alliance (AQA) is a company limited by guarantee registered in England and Wales 3644723 and a registered charity number 1073334 Registered address: Addleshaw Booth & Co., Sovereign House, PO Box 8, Sovereign Street, Leeds LS1 1HQ Kathleen Tattersall: *Director General*

AQA

| Picture/clipart/image/graphic/logo added | |
|---|---------------|
| • Title/font/text made bigger | |
| • (Title/font/text) made bold/underline/italic (max 2) | |
| • (Text) centred | |
| Bullet points /indent/tab made Trat for to have a l(Weather to and l) | |
| • Text font changed/Wordart used | |
| Border/borderart added | |
| WRITING NOT GIVEN | |
| Any 5 for 1 mark each | |
| | Total 5 marks |
| (b) | |
| • Change font name ie Times Roman (if not above) | |
| Coloured text/font/title could be used | |
| Coloured/shaded background could be used | |
| • Coloured border (max 2 for colour) | |
| • Text right/fully justify | |
| Change the line spacing | |
| • Use numbering instead of bullet points | |
| Layering/watermark | |
| • Add table | |
| Change orientation | |
| NOT more of ie add more pictures | |
| NO REPEATS of the changes already made. | |
| Not just move things around. | |
| Any 2 for 1 mark each (2) | |

Total 7 marks

2. Answers to applications software question

| (a) | Communications | Correct answer only | (1) |
|-----|---------------------|---------------------|-----|
| (b) | Mail-merging | Correct answer only | (1) |
| (c) | Word processing | Correct answer only | (1) |
| (d) | Spreadsheet | Correct answer only | (1) |
| (e) | Data Logging | Correct answer only | (1) |
| (f) | Database | Correct answer only | (1) |
| (g) | Desk top publishing | Correct answer only | (1) |



3. Answers to data capture form question

| Manchanakin Number on annivelant | at least 5 | |
|---|--------------------------------------|--|
| Membership Number or equivalent Title | at least 5 | |
| | at least 3 (or coded) at least 10 | |
| Surname | | |
| First name | at least 10 | |
| Name (for one mark) | at least 20 | |
| Sex | at least 6 (or coded) | |
| DOB (not age) | at least 8 (or coded) | |
| Number (house) at least 3 | | |
| Street - Address line 1 | at least 10 | |
| Town/Area/County -Address line 2 | at least 10 | |
| (address – instead of above – 1 mark) | at least 20/memo/or 2×10 | |
| NOTE MAX TWO FOR ADDRESS LIP | | |
| Postcode | at least 7 (3 space 3) | |
| If Address 1 and street are mixed up – usua | | |
| Telephone number (day) | at least 11 | |
| Telephone number (evening) | at least 11 | |
| Contact tel. number | at least 11 | |
| Mobile tel. number | at least 11 | |
| Emergency tel. number | at least 11 | |
| NOTE MAX TWO TELEPHONE NUM | IBERS | |
| Emergency contact name | at least 14 | |
| Fax number | at least 11 | |
| E-mail address | at least 20 (sensible splits) | |
| Photo | box to fit | |
| Medical conditions/allergies | at least 20/memo | |
| Classes attended | at least 10 | |
| Date of membership/expiry of membership | at least 8(2-2-2/4) | |
| Туре | | |
| NB – could use the date at end of form | | |
| Fee paid/subs -1 only for subs at least 6 | | |
| NOT NI - Not doctor, not doctor's address/ | next of kin | |
| Boxes only unless memo specified | | |
| [] – open boxes are OK – boxes with small ve | ertical lines are OK but | |
| dashes are NOT. | | |
| Memo = lines/boxes/dashes | IGNORE FILLING IN | |
| Mark only the first 5 fields | | |
| Ignore correct duplicate fields eg. 3 rd telephon | e number – these do not | |
| count in the FIVE | | |
| Tick correct field name – do not penalise lack of capitals | | |
| Tick correct number of boxes/memo for corresponding field name. | | |
| Count ticks - divide by 2 - round down | | |
| If code is a list that is "open" then "others" needed. | | |
| spen and spen and shere a | | |
| | | |

Total 5 marks

4. Answers to Data Protection Act question

MUST BE USER

- Right to see/access the data about themselves/be given a copy
- Right to have wrong data (about themselves) corrected/deleted
- Right to seek compensation for damage caused (to them) by (the use of) inaccurate data
- Prevent processing (of their) if it is likely to cause them damage or distress
- Prevent data being used for direct marketing
- Prevent automatic decisions being made on the basis of data held
- Make a request to the Data Protection commissioner if Act contravened

Allow the word "access" in the answers until it is clear that they think they are "pressing the keys".

Any 4 × 1 mark per answer

Total 4 marks

5. Answers to database questions

| (a) | (i) Collection of (related) fields Part of a file (or made up of a number of fields) Information relating to one car/thing A row (of a database) Any one point | ×1 mark | (1) |
|---------|--|--|-------------------|
| (ii) | Part of a record Containing one data item An individual box in the table Field name/column label/contents Any one point | (both not needed) | (1) |
| (b) (i) | Registration number (ignore capitals/spelling | g) CAO | (1) |
| (ii) | Unique/identifying field (or similar) | | (1) |
| (c)(i) | Vauxhall (1st mark for Vauxhall) | Correct answer only | (1) |
| | Volkswagen (2 nd mark for Volkswagen on new line, no sep | Correct answer only parators) Must be in th | (1) is order |
| (ii) | | Correct answer only Correct answer only separators) | (1) (1) |
| (d) (i) | List Model For Additional feature Equals Full service history Ignore full stop at end and capitals | Correct answer only Correct answer only | (1) (1) |
| (ii) | List Make, Model For Price Greater than £2999/3000 And Price Less than £5000/5001 Allow greater than or equals to and less than Allow either order | Correct answer only Correct answer only Correct answer only or equals to. | (1) (1) (1) |

6. Answer to the data validation question

| (a)(i) | input | Correct answer only | (1) |
|--------|--|---------------------|-----|
| (ii) | software | Correct answer only | (1) |
| (iii) | it is reasonable | Correct answer only | (1) |
| (b)(i) | Makes sure a field/cell is not left blank/empty (this answer could be given in the next part) | | (1) |
| | Nothing put into a field where an entry is essen | itial | (1) |
| (ii) | Checks the data entered is the type specified ie if number specified only number will | be accepted | (1) |
| | If text is put into a field set to be number (or equ | uivalent) | (1) |
| (c) | Range check Check digit Field length check Batch/hash/control totals Directory check | | (1) |
| | | A | |

Any one × 1 mark

Total 8 marks

7. Answers to data logging/data capture question

| data logging | Correct answer only | (1) |
|-----------------------------------|---------------------|-----|
| MICR | Correct answer only | (1) |
| magnetic strips | Correct answer only | (1) |
| feedback | Correct answer only | (1) |
| OCR | Correct answer only | (1) |
| calibration | Correct answer only | (1) |
| Ignore capitals and poor spelling | | |

Total 6 marks

8. Answers to user interface software question

(a) Menu (driven) Graphical interface/GUI

| | | Any 2 × 1 mark | (2) |
|-----|--|--|------------|
| (b) | A consistency of layout A consistency of text style | Correct answer only Correct answer only | (1) (1) |
| | The use of sound | Correct answer only | (1) |

(c))(i) text/image/word/sentence which provides links to other pages (in an information store) (1)

(ii)An **area (look for as the mouse moves)** which displays further information or provides links to other pages (in an information store) (1)

Total 7 marks

| 9. Answers to operating system question | | | |
|---|---|---|-------------------|
| (a) | Group of programs/program that control the overall operation of of a computer | Any 2 × 1 mark | (2) |
| | | Any 2 ~ 1 mark | (2) |
| (b) | Software | Correct answer only | (1) |
| (c) | Manages system resources including memory Manages the allocation of CPU time Manages the system security | Correct answer only Correct answer only Correct answer only | (1) (1) (1) |
| (d) | Multi-user Multi-programming/tasking Real time Batch Processing Transaction processing Windows/Unix/DOS (max 1 mark) NOT network | | |
| | | Any 2 × 1 mark | (2) |

Total marks 8

June 2003

10. Answers to the library system question

(a) Name/Title of book
Number of copies held
Name of author
Date due in/Date taken out
ISBN number (book number OK)/reference code
Dewy classification
Fiction or non fiction
Genre/theme of book/topic
Library issue number/copy number
Branch location

Any 3×1 mark (3)

 (b) See if a book is in the library/currently available Reserve a book/order over internet to collect later To find books on a particular subject/keyword/genre/theme To find out what topics are covered by a particular book To find out where the book is in the library To find books by a particular author NOT sorting/Type in

Any 3×1 mark (3)

 (c) Can check quickly if a book is in or on loan/overdue More than one member of staff can access the information at a time Less time spent on answering questions/showing people where books are Not expected to remember about all the books Saves space – don't needs lots of filing cabinets NOT easier to search/update

Any 2×1 mark (2)

 (d) More expensive/cost of installing Have to wait for it to be ready Training will always be needed Not tried and tested Cannot share the expertise of others using the same software

Any 2 × 1 mark

(2)

Total 10 marks

11. Answer to the essay question - NB it MUST be clear

- 1. The candidates are talking about those who work at the supermarket (checkout staff, shelf packers/general assistants, department managers, THE manager, even allow the general "the supermarket") or their customers.
- 2. The candidates are telling you if the point being made is an advantage or a disadvantage (could be implied but don't be a mind reader)

If both of these are met look for the point made on the mark scheme.

Staff Advantages (SA)

- (Faster) access to selling figures/stats
- More accurate POS saves staff embarrassment/having to do sums.
- Bar code scanners reduce mistakes
- (Faster/more accurate) computerised ordering
- (Faster/cheaper/)auto stock control
- (Faster to) spot selling trends
- Quicker to change the prices
- Automated (low level) decisions taken based on computer information
- Increased profits for the "boss"
- Gain new skills/jobs (ie ICT training)
- Customer profiling (points cards)
- More secure handle less cash
- More staff security using CTV/helps prevent shop lifting
- Price modelling to show
- Managers have faster access to employee information
- Calculate staff wages accurately/automatically /quickly/electronic transfer to bank

Staff Disadvantages(SD)

- Less personal/less contact with the customer
- Less job satisfaction less responsibility
- Hardware failure leads to Stock not being ordered/stats not available etc.
- Some jobs will go
- Require training to use them effectively
- Hacking/virus issues (max 1- anywhere)
- Equipment is expensive so some "stores" cannot compete

Customers Advantages(CA)

- (Quicker) shorter queues/speeds up shopping for the customer.
- Customers can scan their own goods.
- More info available itemised till receipt/saves customer embarrassment
- Shop from home/online shopping
- E-mail from home
- Increased payment options/cash back
- Automatic door (using sensors) for trolleys/disabled
- Personalised letters sent to customers
- CTV helps prevent crime/ increases security (1 max)
- Goods MORE available on shelves

NOT cheaper

Customers Disadvantages(CD)

- Less personal service
- Customer profiling (points cards)
- Junk e-mail from shops
- Hackers could gain credit card information
- Security tags not removed could cause embarrassment/arrest
- Prices not changed/not the same as those on display could lead to overcharging
- Delays due to typing in bar codes can cause delays

Any 1×10 . Min of 1 from each section. Ie could be 7,1,1,1 for 10

Total 10 marks