Mark scheme June 2003

GCSE

Information and Communication Technology A

Short Course
3527 Higher

Answers to multiple choice questions

1.	**B**	**C**	Correct answer only	**(2)**
2.	**B**		Correct answer only	**(1)**
3.	**B**	**D**	Correct answer only	**(2)**
4.	**C**		Correct answer only	**(1)**
5.	**B**		Correct answer only	**(1)**

Words instead of letters is OK (if correct)

Total 7 marks

6. Answers to IN/OUT/storage question

    (a)   Graphics digitiser

                Keyboard

                Light Pen

                Mouse

                Joystick

                                Any 4   Correct answer only   **(4)**

    (b)   Laser Printer

                Plotter

                Monitor

                Speaker

                                  Any 3   Correct answer only   **(3)**

    (c)   CD-ROM

                RAM

                Hard disc   **Any 2**   Correct answer only   **(2)**

    Ignore spelling mistakes

Total 9 marks

7. Answers to data capture form question

Membership number or equivalent	at least 5
Title	at least 3 (or coded)
Surname	at least 10
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 LINES ABOVE

Postcode	at least 7 (3 space 3)

If Address 1 and street are mixed up – usually gains one mark

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 NUMBERS

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)
Type	
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 vertical 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. 3rd telephone 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.

Total 5 marks

8. 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 3 × 1 mark per answer

Total 3 marks

9. Answers to data logging/data capture question

data logging	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 4 marks

10. Answers to decorating spreadsheet questions

    (a)   B7   Correct answers only   **(1)**

    (b)(i)   number/currency   Correct answers only   **(1)**

     (ii)   text   Correct answers only   **(1)**

    (c) (i)   (=)B3*C3   **(1)**
             NOT 3B or 3C = at end mark wrong   must be * not ×
             Allow the use of (=)sum( )
             Allow D3=B3*C3

      (ii) (=)Sum(D3:D16)   Range could be D1-D17 (must inc. D3 to D16)
          D3+D4+D5+D6+D7+D8+D9+D10+D11+D12+D13+D14+D15+D16 is OK
                                               (1)
    If the whole centre has a different separator – ring team leader

    (d)   Reduce the number of ………..   **(1)**
                   Reduce to zero is fine
                   Don't buy a carpet is fine (or similar)
                   Reduce cost of ……
                   Must be reducing

        Second mark is for the check
                   That the total keeps within £550/within budget   **(1)**

                                                                      Total 7 marks

11. Answers to database questions

(a) (i) Collection of (related) fields
Part of a file (or made up of a number of fields)   **(1)**
Information relating to one car/thing
A row (of a database)   **Any one point × 1 mark**

(ii) Part of a record   **(1)**
Containing one data item
An individual box in the table
Field name/column label/contents
Any one point (both not needed)

(b) (i)   Registration number   (ignore capitals/spelling)   Correct answer only   **(1)**

(ii) Unique/identifying field (or similar)   **(1)**

(c)(i)   Vauxhall   **(1st mark for Vauxhall)**   Correct answer only   **(1)**

Volkswagen   Correct answer only   **(1)**
(2nd mark for Volkswagen on new line, No separators) Must be in this order

(ii)   Mondeo   M673 FRD   (, ok between)   Correct answer only   **(1)**
       218S   M12 GHR   (, ok between)   Correct answer only   **(1)**
(2nd mark for 218S M12 GHR on new line, No separators)

(d) (i) List Model For   Correct answer only   **(1)**
         Additional feature Equals Full service history   Correct answer only   **(1)**
Ignore full stop at end and capitals

(ii) List Make, Model For   Correct answer only   **(1)**
     Price Greater than £2999/3000   Correct answer only   **(1)**
     And Price Less than £5000/5001   Correct answer only   **(1)**
     Allow greater than or equals to and less than or equals to
     Allow either order

Total marks 13

12. Answers to charts/Web design question

(a)Construction pie charts from tables of data   Correct answer only   **(1)**
    Produce labels and axes, legends and headings   Correct answer only   **(1)**
    Edit the number scales on the axes   Correct answer only   **(1)**

(b)(i)   **text/image/word/sentence** which provides links to other pages (in an information store)
        not link in place of text/image etc.   **(1)**

  (ii)An **area** which displays further information/provides links to other pages (in an information store)
                                                (1)

(c)   Add/delete pages
       Set upstyles/house styles
       Change links
       Look at/edit HTML
       Add a counter for counting hits
       Allow DTP features (max 1 mark)
                                    Any 2 × 1 mark   **(2)**

       Not answers given above eg.
       Not hyperlink/hotspot - not answer from (a)

                                                Total 7 marks

13. Answers to health and safety question

(a)   Epilepsy (trigger)
         Eye strain/headaches
         Repetitive strain injury (RSI) – pains in arms, wrists and fingers
         Bad backs
         Exposure to radiation
         Stress

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Any 2 × 1 mark   **(2)**
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MUST RELATE to their answer but could be implied rather than explicit.
If more than two answers – mark the first two.
Not obesity

(b)   **Eye strain**
         Free eye tests
         Screens kept free from flicker/regular refresh
         Reduce reflected light/glare – "matt" systems
         Bright lighting (reduce contrast between VDU and surrounding light)
         Ability to change the angle of the screen
         Ability to adjust the screen brightness and contrast
         Close curtains/blinds
         Look away from the screen to another object
         Take a break/do something different

         Repetitive strain injury (RSI) – pains in arms, wrists and fingers
         Concave-shaped keys
         Keyboard lies flat or be at an angle of up to 10 degrees
         Separate from VDU so the user can adjust
         Take a break/do something different

         Bad backs
         Chairs designed to swivel
         Chairs have adjust back support/height
         Operators not to work too long without a break (allows change in posture)
         Use a foot rest

         Exposure to radiation
         Use shield to protect from radiation
         Have equipment checked regularly

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Any 2 × 1 for chosen danger   **(2)**
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Total 4 marks
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14. Answers 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   **(1)**

  (ii)   Checks the data entered is within given limits
         Example is OK as long as one limit is specified ie. Less than 100   **(1)**

                                                          Total 5 marks

15. Answers to the library system question

(a)   Name/title of book
         Name of author
         Date due in/Date taken out
         ISBN number (book number OK)/reference code
         Dewy classification   (where located)
         Fiction or non fiction
         Genre/theme of book/topic
         Library issue number/copy number
         Number of copies held
         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 a title or same thing
                        Any 2 × 1 mark   **(2)**

(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 1 mark   **(1)**

                                                          Total 6 marks

16. 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