AQA

ASSESSMENT and
QUALIFICATIONS
ALLIANCE

General Certificate of Secondary Education

Information and Communication Technology 3522 Full Course
Specification B

3522/F   Foundation Tier

Mark Scheme

2008 examination - June series

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.
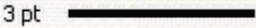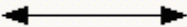
Further copies of this Mark Scheme are available to download from the AQA Website: www.aqa.org.uk

| 1 | (a) | (i) | This point | 1 mark |

3 pt ▬▬▬▬▬

| 1 | (a) | (ii) | This point | 1 mark |

▬ ▬ ▬

| 1 | (a) | (iii) | This point | 1 mark |

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| 1 | (b) | (i) | This point | 1 mark |
| | | | Centred – allow misspellings | |

| 1 | (b) | (ii) | This point | 1 mark |
| | | | Left Justified – allow misspellings | |

| 1 | (b) | (iii) | This point | 1 mark |
| | | | Indented – allow misspellings | |

| 1 | (c) | | Any reasonable | 2 marks |

Locate the cursor in the paragraph to be indented + Select 'increase indent button in the toolbar' – must distinguish between increase and decrease indent, 1+1
Locate the cursor in the paragraph to be indented + in the ruler drag the indent tab, 1+1
Highlight the paragraph to be indented + press the tab key, 1+1
NOT use the tab key by itself
NOT use the space bar

| 1 | (d) | | These points | 2 marks |

Portrait is clearly identified, 1m
Landscape is clearly identified, 1m

| 1 | (e) | (i) | This point | 1 mark |
| | | | Selection – allow misspellings | |

| 1 | (e) | (ii) | This point | 1 mark |
| | | | Fill – allow misspellings | |

| 1 | (f) | (i) | This point | 1 mark |
| | | | Clip Art – allow misspellings | |

| 1 | (f) | (ii) | This point | 1 mark |
| | | | Word Art – allow misspellings | |

| 1 | (f) | (iii) | This point | 1 mark |
| | | | Autoshape – allow misspellings | |

Total 15 marks

2	(a)	(i)	These points Two of: B, D, E	2 marks
2	(a)	(ii)	These points A, C	2 marks
2	(a)	(iii)	These points Two of H, I, L	2 marks
2	(a)	(iv)	This point F	1 mark
2	(b)	(i)	This point J	1 mark
2	(b)	(ii)	This point K	1 mark
2	(c)		These points Increase the amount of RAM memory Upgrade the router and modem	2 marks
2	(d)		This point 1024 Kilobytes	1 mark
2	(e)		These points The file myletter.doc is saved in a folder called 'Friends' The file myletter.doc is likely to be a word processor document The full path name is unique on the desktop computer	3 marks

Total 15 marks

3	(a)	(i)	This point Text – allow misspellings	1 mark

3	(a)	(ii)	This point A date – allow misspellings	1 mark

3	(a)	(iii)	This point A formula – allow misspellings	1 mark

3	(a)	(iv)	This point Currency – allow misspellings	1 mark

3	(b)	(i)	This point B – allow =B7*C7	1 mark

3	(b)	(ii)	This point D – allow =SUM(D4:D8)	1 mark

3	(c)	(i)	Any reasonable Identifies the cell and describes a method of editing it, 1+1m Highlight cell B6 + type in 400, 1+1m Highlight cell B6 + in the formula bar delete 5 and enter 4, 1+1m	2 marks

3	(c)	(ii)	This point One of: D6 or D10, 1m Ignore more than one correct answer If any cell reference is incorrect, 0m	1 mark

3	(c)	(iii)	This point The cell contains a formula that refers to the other cell	1 mark

3	(d)	(i)	This point Pie – allow misspellings	1 mark

3	(d)	(ii)	This point Bar (or Column) – allow misspellings	1 mark

3	(d)	(iii)	These points All the data cannot be seen as one column is blocking out another Some of the labels are missing The scale used does not show the quantity sold	3 marks

Total 15 marks

4	(a)	(i)	This point Record – allow misspellings	1 mark

4	(a)	(ii)	This point Field – allow misspellings	1 mark

4	(b)		These points Telephone Number Date of birth	2 marks

4	(c)	(i)	These points **MemberNumber** is the key field The content of the key field must be unique	2 marks

4	(c)	(ii)	Any reasonable Not 2015, 0365, 0112, 8231 Must be four digits long	1 mark

4   (d)   These points   2 marks
Correct ascending order – ignore misspelling, 2m

Name
Afzal
Flanagan
Hassini
Jowett
Milner

Four in ascending order ignoring any one name not in order, 1m
For example,
  AFJHM has the J and H transposed
  Either cross out J leaving four in ascending order: AFHM
  Or cross out H leaving four in ascending order: AFJM
Correct descending order, MJHFA, 1m

4	(e)	(i)	These points Using a keyboard Using OCR (Optical Character Recognition)	2 marks

4   (e)   (ii)   These points   4 marks
Title or explanation of reason for collecting data or explains how to fill in form
or entry, 1m max
Asks for Name and Instrument, 1m
Asks for other reasonable field except telephone number and date of birth, e.g.
address, gender, experience, e-mail address, 1m max
NOT Age
Uses character boxes, 1m
Uses tick boxes, 1m
Uses any other method that facilitates input to a computer, 1m
Questionnaire is signed and dated, 1m

Total 15 marks

5	(a)		These points Close the windows Turn the heater on	2 marks
5	(b)		These points The best temperature for plant growth The best humidity for plant growth	2 marks
5	(c)		These points The temperature in the greenhouse The humidity in the greenhouse	2 marks
5	(d)	(i)	This point Sensors – allow misspellings	1 mark
5	(d)	(ii)	This point Actuators – allow misspellings	1 mark
5	(e)		These points A sensor records the humidity and this is input to the computer The computer adjusts the water sprinklers to increase or decrease the humidity The computer continually reacts to the input from sensors	3 marks
5	(f)		These points The growing conditions are always the best The greenhouse is monitored all day every day There is less wastage of water and heating than with manual systems	3 marks
5	(g)		Any reasonable, for example The computer checks if all sensors and actuators are working, 1m The computer sets off an alarm in the garden centre office if there is a breakdown, 1m	1 mark

Total 15 marks

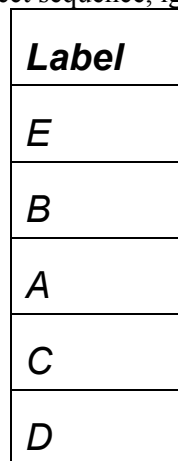| 6 | (a) | (i) | This point
the operating system – allow misspellings | 1 mark |
6	(a)	(ii)	This point an icon – allow misspellings	1 mark
6	(b)	(i)	These points One person enters the data from the questionnaire; another person enters the data from the questionnaire; the computer checks that both people have entered the same data The person entering the data looks to see that what is written on the questionnaire is the same as the data displayed on the screen	2 marks
6	(b)	(ii)	This point To make sure that the data entered into the computer is the same as the data on the questionnaire	1 mark
6	(c)		These points Enter the number 12 and this is rejected Enter the number 4 and this is accepted Enter the number 0 and this is accepted	3 marks
6	(d)	(i)	This point 10	1 mark
6	(d)	(ii)	These points The same ISBN number will have the same check digit The computer recalculates the check digit when an ISBN is input to see if a mistake has been made typing it in Different ISBN numbers can have the same check digit	3marks
6	(e)		These points The computer has been switched on at the processor box The screen has been switched on All the cables are firmly plugged into the correct sockets	3 marks

Total 15 marks

7 (a)   Any reasonable   3 marks
All instructions in correct syntax, 1m
Correct sequence in 6 instructions, e.g. F2 L90 F2 R90 U3 Push, 3m
Correct sequence in more than 6 instructions, 2m
If not a correct sequence then max 2m
L90 followed by R90, 1m
Uses F2 twice only, 1m
U3 followed by Push, 1m

7 (b)   These points   3 marks
All instructions in correct syntax, 1m
Arrives at 2nd shelf at B and pulls, in any number of instructions, 1m
Moves from the 2nd shelf at B to the 4th shelf at E and pushes, in any number of instructions, 1m
A correct sequence in more than 11 instructions, 2m max
A correct sequence in 11 instructions, 3m max, for example
     F2 L90 F3 R90 U2 Pull
     R90 F3 L90 (U3 or U5) Push

7 (c) (i)   Any reasonable, for example   1 mark
     F2
     L90
     F3
     L90 This instruction should be R90
     U5
     Push
Because the fork lift is facing in the wrong direction

7 (c) (ii)   Any reasonable, for example   1 mark
It is dumped on the floor of the warehouse
NOT: put or placed

7 (d)   These points   3 marks
Correct sequence, ignoring C at the start or at the end, 3m

Label
E
B
A
C
D

Sequences EB or CD or BAC, 1m each, 2m max

7 (e)   These points   2 marks
There are fewer jobs for people if computer controlled fork lift trucks are used
People in other warehouses may have to work longer for less money to compete

with warehouses that use computer controlled fork lift trucks

7	(f)	(i)	Any reasonable advantage but not those given in e), for example Computer controlled fork lift trucks can work 24/7 No lighting is needed in the warehouse and this leads to savings	1 mark
7	(f)	(ii)	Any reasonable disadvantage but not those given in e), for example Computer controlled fork lift trucks will be more expensive to buy than those operated by people Computer controlled fort lifts cannot respond to unusual situations as flexibly as people.	1 mark

Total 15 marks

8	(a)		These points Employees are quickly deskilled Old software may not be able to process files produced by new software A large quantity of old ICT hardware needs to be disposed of	3 marks
8	(b)		These points Regularly retrain employees Refurbish or re-cycle old ICT hardware Plan spending to allow for regular replacement of hardware and software	3 marks
8	(c)	(i)	These points Children can develop the skills needed to modernise their own country Children can use educational software which will help them learn ICT hardware is used for longer before it is thrown out	3 marks
8	(c)	(ii)	These points The ICT hardware may not be useable because schools in developing countries may not have an adequate electricity supply Money spent on transporting old ICT hardware may be better spent on providing a clean water supply ICT skills may not be useful to children in developing countries as there are few local jobs that require these skills	3 marks
8	(d)		Any reasonable, for example Advantages They avoid the stress or over stimulation or health problems characteristic of exposure to modern, high speed ICT and media They can concentrate on the important things in life and are not distracted by technology or trivial media content Members and their children are protected from inappropriate content on the Internet Disadvantages They do not know what is going on in the modern world It is harder/slower to communicate with people outside the group if e-mail/chat/telephone/fax is not used Many jobs require ICT skills so it's harder to get a job	3 marks

Total 15 marks