AQA

ASSESSMENT and
QUALIFICATIONS
ALLIANCE

General Certificate of Secondary Education

Information and Communication Technology 3521H Full Course
Specification A

3521/H   Higher 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		D	Correct answer only	1
2		B	Correct answer only	1
3		C	Correct answer only	1
4		B	Correct answer only	1

5	(a)	The exclusive **legal** / own /belong to (publish/ perform/ film/ record…..) Protection of creative or artistic works		1

5	(b)	Clip-art is sometimes free of copyright	Correct answer only	1

5	(c)	A **fine/** pay compensation **Prison** sentence **Caution**	Any 1 x 1 mark	1

5	(d)	**Different Features (look for bold features)**		3

- **Numbered** points **/ bullet** points
- Increase text size/**Text** size made **bigger**
- Text made **bold/italics/underline/ Changed font style/effects** e.g. shadowing
- **Coloured** text / **coloured** background / **colour**
- **Alignment - Centre** text/ Text **right/fully justify/rotate text**
- Import company **logo/picture**
- **Move, rotate, edit images, drawing tools/auto shape**
- **Tables**
- **Text boxes**
- **Borders**/Border Art
- **Columns/Tab/margins**
- **Shaded/pattern/watermark/transparency**
- **Text wrapping**
- **Page size / orientation**
- **Word art**
- **Master page/header/footer/page numbers**

Any 3 x 1 mark

6	(a)	Text	Correct answer only	1
		Date	Correct answer only	1
		Text	Correct answer only	1
		Currency	Correct answer only	1

6	(b)	Title Postcode Mobile phone number/Emergency phone number National Insurance number Fast food branch/ location Job title Date started Hours worked (each week)/Overtime worked Qualifications Gender Ethnic background/nationality Disability Bank details e-mail address	Any 2 x 1 mark	2
6	(c)	Presence check /Alpha numeric check/Length check		1
		Presence check Range check/Data type /numeric / currency check		1
7	(a)	**G** (OMR)	Correct answer only	1
7	(b)	**H** (Questionnaire)	Correct answer only	1
7	(c)	**A** (Bar codes)	Correct answer only	1
7	(d)	**D** (Magnetic strip) OR **I** (sensor)		1
7	(e)	**E** (MICR)	Correct answer only	1
8	(a)	A14	Correct answer only	1
8	(b)	Date Currency Text Number Formulae Merging /wrapped text **Accept close spelling**	Any 3 x 1 mark	3
8	(c)	**Column** (graph)/chart **Bar** (graph)/3D Bar Graph etc. **Pie** (chart) Bold word is needed	Any 1 mark	1
8	(d)	**(=) d17/b5** (or /c11 or /c12) Must use the / sign For d17 could be Sum(d8:d12) or = sum(d17/b5) (D8+D9+D10+D11+D12); use of : (colon) instead of + OK without = sign. **NOT** d17/150		1

8	(e)	**1. Check** the **cost in D19** (Cost per student) is < £20 or <= £20 (visual or validation) **2. Reduce cost/number in**……….. (e.g. decorations / meal etc or cell reference) OR **increase the number of students.** **3. Check for error message** 4. **Repeat steps 1 and 2 until cost in D19** (Cost per student) is **<£20 <= £20** (Ok / acceptable) Allow Goal seeker solutions that cover these points **Goal seek by itself scores 1** (2nd mark from above possible) Any 2 x 1 mark	2
9		MARK ANY FOUR **Process** data **fairly/lawfully** **Obtain** data **fairly/lawfully** **Destroy data** when no longer needed/not kept longer than needed **Keep data secure against** (one of) loss/damage/unlawful processing **Only use for registered purpose** - Process within the rights of the data subjects **Keep up-to-date/accurate** - Data must not be **excessive for the purpose** **Data must not be transferred to countries outside EEC/EU** Any 4 x 1 marks	4
10	(a)	MUST USE COMMAND LIST ONLY Fd6 (or Fd5 Bk4 Fd5) 1 mark Rt90 Fd5 Both instructions 1 mark **Allow spaces and capitals / lower case**	2

| 10 | (b) | MUST USE COMMAND LIST ONLY | | 3 |

Moving to A
Fd6   (or Fd5 Bk4 Fd5)
Rt90
Fd5   1 mark
Mark this part before starting the movement to B
**_Movi_

_ng to B_
Bk4
Bk5 (either order for Bk4 and Bk5) 1 mark

OR
Moving to B
Rt90
Rt90
Fd4
Fd5 (either order for Fd4 and Fd5) 1 mark

Mark this part before starting the movement to start
****

**If the second mark is wrong then look for any of these
solutions for the third mark.**
Moving to starting position
Fd4
Rt90
Fd6 (or Fd5 Bk4 Fd5)   1 mark

OR

Bk4
Rt90
Rt90
Rt90
Fd6   (or Fd5 Bk4 Fd5)   1 mark
 OR
Rt90
Rt90
Fd4
Rt90
Fd6   (or Fd5 Bk4 Fd5)   1 mark
****
Allow spaces and capitals / lower case
Any extra movement at the end– no penalty.

| 11 | (a) | Heating | | 1 |
| | | Pets Allowed | Any 1 mark | |

| 11 | (b) | 12 | Correct answer only | 1 |

| 11 | (c) | **Unique/different** identifier for each record | | 1 |

11	(d)		**Faster** to **search** (NOT easier) **Faster to sort**/sort on multiple fields **Faster/easier** to **edit**/update Takes up **less space** **Backup data** **Less chance of losing**/misplacing records on a computer **Faster/neater to graph** data **Access** from **outside office** **Faster/more attractive** generation of **reports** **Access** by **several people** at **one time** **Export** to other applications **More secure because**……………… **Validation** helps to **reduce errors** **NOT easy to use (0)** Any 2 x 1 mark	2
11	(e)	(i)	C4UH02 Correct answer only	1
11	(e)	(ii)	C4UC01 C4UH03 Both answers **– words/separators between OK**	1
11	(e)	(iii)	C4UC02 C4UC04 C4UC06 **– words/ separators** **between OK** ALLOW IN ANY ORDER	1
11	(f)	(i)	Missed out by **mistake / error** Missed out as **no validation** put on the field Details **not sent in** by the owner of holiday home Any 1 mark	1
11	(f)	(ii)	Use **validation** 1 mark **presence check** or **drop-down menu** or **default set to Y (or N)** or suitable explanation 1 mark	2
12	(a)		Design Correct answer only	1
12	(b)		A list of all test to be carried out Correct answer only	1
			Expected results Correct answer only	1
12	(c)		To help make sure **"all the options"** are **tested** To see the **expected results** To **see** the **data needed** for each **test** To **match against the design** before Implementation So **others can test** using the test plans Any 2 x 1 mark	2
12	(d)	(i)	Any number value **1 - 99**	1
12	(d)	(ii)	**0** or **100**	1
12	(d)	(iii)	Any value **<0** (less than 0) or **>100** (greater than 100)	1

13	(a)	**Sending** a text **message**/attachment/file/picture/letter	1
		Over a **communications network**	1
		LAN/WAN/Internet/WAP phone/from one computer to another	
		Electronic Mail scores nothing by itself.	

| 13 | (b) | E-mails will arrive faster   Correct answer only | 1 |
| | | E-mails are cheaper to send   Correct answer only | 1 |

13	(c)	Can use **tracking** with post / Can obtain **proof of posting** from Post Office	1
		Need **computer / Internet**	
		Cannot send **physical objects** (e.g. parcels)	
		Remote location **may have post but not internet** connections	
		virus	
		NOT hacking/spam Any 1 mark	

13	(d)	**Immediate answer** /reply/ quick **two way communication**	1
		Can **"read" the reply** by tone of voice etc.	
		More personal	
		Any 1 mark	

| 14 | (a) | Software   Correct answer only | 1 |

14	(b)	Managing system resources including memory	
		Correct answer only	1
		Transferring data to a printer Correct answer only	1

| 14 | (c) | Multi-user   Correct answer only | 1 |

14	(d)	Multi-tasking real time batch processing	1
		Windows … RISCOS Linux	
		NOT just XP, Vista, etc by itself	

15	(a)	Answers need to relate to **possible consequences to the company**	3
		• Letter/packages etc. **delivered to wrong address**	
		• Bills/invoices sent out will be wrong **(customers charged too much for an item)**	
		• Employees **wages could be wrong**	
		• Telephone calls to ….. go to the **wrong numbers/wrong people contacted**	
		• Wrong financial information – **loans refused**	
		• Creates a **bad/poor image** for the company	
		• **Loses customers as a result of ………**	
		• Company gets into **legal problems** – sued/fined	
		• **Breaks DPA**	
		• **Sensitive information** goes out to the **wrong people**	
		Any 3 x 1 mark	

| 15 | (b) | **Any of the following:** | 3 |

- Failure to / **not update regularly**
- **Entered wrongly**/inaccurately accidentally / deliberately/human error
- **Amended incorrectly**
- **Hardware problems**/failure e.g. back storage failure etc.
- **Hackers** changing data/data tampered with
- **Virus** attack

Any 3 x 1 mark

| 15 | (c) | **Any of the following:** | 4 |

- **Data validation**/or an example
- **Data verification / Proof read/ double checking entry**
- **Use of coded data**
- Keep **backup** copies
- **Regular service** of hardware
- **Firewall**
- **Virus checker**
- **Passwords/access levels**

Any 4 x 1 mark