**General Certificate of Secondary Education
June 2010**

**Information and Communication Technology
3521 Full Course**

Specification A

3521/F Foundation Tier

Final

Mark Scheme

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.

| 1 | (a) | (i) | Keyboard | **Correct answer only** | 1 |

| 1 | (a) | (ii) | F (Scanner) | **Correct answer only** | 1 |

1	(a)	(iii)	graphics digitiser	concept Keyboard	MICR	
			OCR	light Pen	digital camera/webcam	
			OMR	mouse/rollerball	joystick/games controller	
			bar code reader	sensor	graphics tablet	
			touch screens/pad	microphone	wand	
					Any 1 x1	1

| 1 | (b) | (i) | Printer (allow prefix e.g. laser) | **Correct answer only** | 1 |

| 1 | (b) | (ii) | E (Monitor) | **Correct answer only** | 1 |

1	(b)	(iii)	plotter	actuator/relay	
			motor/robot arm	speaker/headphones	
			lights		
				Any 1 x 1	1

| 1 | (c) | | D (DVD drive) | **Correct answer only** | 1 |

| 2 | (a) | | A | **Correct answer only** | 1 |

| 2 | (b) | | B | **Correct answer only** | 1 |

| 2 | (c) | | D | **Correct answer only** | 1 |

| 2 | (d) | | C | **Correct answer only** | 1 |

3	(a)		Line spacing	**Correct answer**	1
			only		1
			Centre	**Correct answer**	
			only		

3	(b)		Spell checker		
			Grammar checker		1
			Both words needed (not just "spelling")		
				Any 1 x 1 mark	

3	(c)		**Select/Highlight** the fourth row and **cut** out this row		1
			Allow copy instead of cut only if followed by delete		
			Position the cursor at the **end** of the flyer and **paste** in line four		1
			Or CTRL X		
			CTRL V		
			Key words in bold		

4

Title	at least 3/coded
Postcode	at least 7 (or clear 3 box gap 3 box)
Telephone number (day) / 1	at least 11
Telephone number (evening) / 2	at least 11
Contact tel. Number	at least 11
Mobile tel. Number	at least 11

NOTE MAX TWO TELEPHONE NUMBERS

E-mail address	at least 20(sensible splits)
Date (of joining)/date at end of form	at least 8(2-2-2/4)
DOB	at least 8(2-2-2/4)
Gender	at least 6 or coded
Name of Doctor/Previous Doctor	at least 15
Doctor's address etc.	at least 20 any no. of lines or memo

1 doctor mark only

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 4 fields

Ignore correct duplicate fields e.g. 3rd telephone number – these do not count in the FOUR.
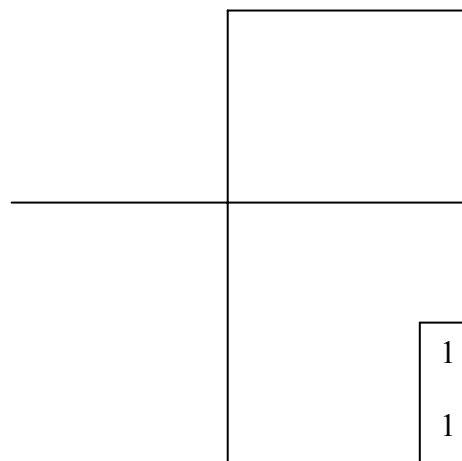
Tick correct field name – do not penalise lack of capitals

Tick correct number of boxes/memo field for the corresponding field name.

Count ticks   - divide by 2   - round down

                                        Max 4 marks

5   (a)

1 mark for the **first 4 moves**

1 mark for the **last 5 moves**   2

5   (b)

FD 5		
RT 90		
FD 2	1 mark	

BK 5		
RT 90		
FD 2	1 mark	

OR	FD 5	
	LT 90	
	FD 3	1 mark

	LT 90	
	FD 2	
	BK 2	
	LT 90	
	FD 5	1 mark

Other correct answers are possible
and must be awarded the marks

2

6   (a)   A key field must never be empty   **Correct answer only**   1
A key field must contain a different value in each record in the
database table   **Correct answer only**   1

6   (b)   It takes less time / quicker to enter data
Fewer errors
It takes up less storage space
                                                              Any x 1 mark   1

6   (c)   To lock all computer rooms when not in use
                                                         Correct answer only   1
Use clamps and cables to attach the computer to the desk
                                                         Correct answer only   1

6   (d)   Make it long/quite long/more than 6 characters
Make it something not easy to guess / not related to you
Make it a combination of letters / numbers / upper lower case
Make something you will remember
Don't write it down/don't tell anyone
Change it regularly   2
                                                              Any 2 x 1 mark

7   (a)   (i)   Copyright   **Correct answer only**   1

7   (a)   (ii)   If 7a (i) not copyright 7a (ii) cannot be awarded marks

Bought an extra licence   1
Not taken the software home
Take computer home
Only install on 4 computers
                                                              Any1 x 1 mark

7   (b)   (i)   **What**
People who gain **unauthorised** / **illegal** access to other   1
peoples' computer system
(access is usually remote)

Why
To gain access to **copy / damage / corrupt / add virus / delete**   1
/ look at / fraud

7	(b)	(ii)	**Software**/is a **program** **Replicates** itself (may) **cause problems/damage** to other software or systems **Any 2 x 1 mark**	2
8	(a)		You can transfer money 24 hours a day **Correct answer only**	1
			You can pay bills from your account without having to leave home **Correct answer only**	1
8	(b)		Not feel a personal service / don't like using computers / don't know how Access/ISP can cost money Virus issues Hacking issues Not everyone has access to Internet/computers/computer broken/Internet down/other access problems Fraud/Phishing/Identity Theft/less secure **Any 2 x 1 mark**	2
9	(a)		C4 **Correct answer only**	1
9	(b)		(=)sum(C3:C11) – allow C12 or C13 instead of C11 (=)C3+C4+C5+C6+C7+C8+C9+C10+C11 – allow +C11+C12 **Any 1 x 1 mark**	1
9	(c)		=C3*3+D3 **Correct answer only**	1
9	(d)		Click in **F3/cell** containing the formula	1
			Replicate the formula down /**drag down the bottom right hand corner** to cell F11 Allow VALID copy and paste answer	1
9	(e)		Click on the word Help or ? on the top of the spreadsheet / press F1	1
			Type in formulae/formula and select one of the options given	1
9	(f)		E-mails will usually arrive faster **Correct answer only**	1
			E-mails will be cheaper to send **Correct answer only**	1
10	(a)		Detailed planning for the reports that will be produced by the system **Correct answer only**	1
			A test plan with test data **Correct answer only**	1
10	(b)		Expected results **Correct answer only**	1
10	(c)	(i)	10 **Correct answer only**	1
10	(c)	(ii)	15 **Correct answer only**	1
11	(a)		Don't need to remember the "commands" needed Keyboard/typing often not needed Often "language free" / visual / icons to click on Easy to use / easy to understand / user friendly **Any 1 x 1 mark**	1

11	(b)		Command Driven	**Correct answer only**	1
			Menu Driven	**Correct answer only**	1
			Allow		
			Conversational (Interface) / CLI		
			Forms Dialogue (Interface)		

11	(c)		use of colour		
			use of sound		
			use of images/pictures/graphics		
			position of items on screen		
			help facilities		
			house style		
			Font size		2
			NOT easy to use.	**Any 2 x 1 mark**	

11	(d)	(i)	Data transfer to and from peripherals	**Correct answer only**	1
			Sharing resources between different tasks		
				Correct answer only	1

11	(d)	(ii)	Supervises the programs whilst they are running / sharing CPU time		
			Provides start up instructions (boot up)		
			Handling interrupts		
			Share resources between different tasks		
			Reporting on errors/Error handling		
			Allocation of storage space/managing memory		
			System security		1
				Any 1 x 1 mark	

12	(a)		Checking of data on INPUT		
			by software		
			to see if it is reasonable / sensible / within a given range (not correct)	**Any 2 x 1**	2

12	(b)		(i) range (check)	**Correct answer only**	1
			(ii) presence (check)	**Correct answer only**	1
			(iii) check digit	**Correct answer only**	1

13	(a)	(i)	FG123		
			TV459		1
			Ignore grammar and punctuation or multiple lines		
				Correct answer only	

13	(a)	(ii)	FZ034 Freezer		
			FG156 Fridge		
			TV517 Television		1
			Not "TV" or "Telly" but ignore minor spelling mistakes		
				Correct answer only	

13	(b)	(i)	**List** Product Code **When** Product Name **Equals** DVD player		
			(Ignore missing capital letters)		1
				Correct answer only	

13	(b)	(ii)	**List** Product Code, Product Name **When**		
				Correct answer only	1
			Selling price (£) **Greater than** 500	**Correct answer only**	1
			(Ignore missing capital letters)		

14	(a)	(i)	Random Access Memory	**Correct answer only**	1
14	(a)	(ii)	RAM is volatile memory	**Correct answer only**	1
14	(b)		Information should be kept accurate and up to date	**Correct answer only**	1
			Information should be relevant and not excessive for the purpose	**Correct answer only**	1
			Information should be kept secure	**Correct answer only**	1
14	(c)		The right to see or be sent a copy of the data held about them	**Correct answer only**	1
			The right to seek compensation for damage caused by the use of inaccurate data	**Correct answer only**	1