

# Mark Scheme

## Sample Assessment Material - Spring 2011

Updated 23 May 2011

IGCSE

IGCSE ICT (4IT0/01)

## General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

## SECTION A

Question Number	Answer	Mark
1	C	1

Question Number	Answer	Mark
2	B	1

Question Number	Answer	Mark
3	C	1

Question Number	Answer	Mark
4	B	1

Question Number	Answer	Mark
5	C	1

Question Number	Answer	Mark
6	A	1

Question Number	Answer	Mark
7	B	1

Question Number	Answer	Mark
8	A	1

Question Number	Answer	Mark
9	B	1

Question Number	Answer	Mark
10	C	1

Question Number	Answer	Mark
11	A	1

Question Number	Answer	Mark
12	D	1

Question Number	Answer	Mark
13	C	1

Question Number	Answer	Mark
14	D	1

Question Number	Answer	Mark
15	D *	1

Question Number	Answer	Mark
16	A	1

Total for section A = 16 marks

\* Updated 23 May 2011

**SECTION B**

Question Number	Answer				Do not accept	Additional Guidance	Mark
17(a)	<b>Component</b>	<b>Input</b>	<b>Output</b>	<b>Input and Output</b>			4
	Concept keyboard	[X]					
	Touch screen			[X]			
	Printer		[X]				
	Chip and pin reader	[X]					

Question Number	Answer	Do not accept	Additional Guidance	Mark
17(b)(i)	Item number			1

Question Number	Answer	Do not accept	Additional Guidance	Mark
17(b)(ii)	Any two advantages from: <ul style="list-style-type: none"> <li>• Fewer human errors (1)</li> <li>• Faster data entry (1)</li> <li>• Reduced queuing time (1)</li> </ul> <div style="text-align: right;">2x1</div>			2

Question Number	Answer	Do not accept	Additional Guidance	Mark
17(c)(i)	<ul style="list-style-type: none"> <li>• server / mainframe (1)</li> </ul>			1

Question Number	Answer	Do not accept	Additional Guidance	Mark
17(c)(ii)	Three ways from: <ul style="list-style-type: none"> <li>• Stock control (1)</li> <li>• Automatic reordering (1)</li> <li>• Analysis of sales (1)</li> <li>• Monitoring checkouts (1)</li> </ul> <div style="text-align: right;">3x1</div>			3

Total for question 17 = 11 marks

Question Number	Answer	Do not accept	Additional Guidance	Mark
18(a)	Input device	Keyboard / mouse (1)		2
	Output device	Monitor / printer (1)		

Question Number	Answer	Do not accept	Additional Guidance	Mark
18(b)	<b>Task</b>	<b>Software</b>		4
	Keeping records of tenants	Database / spreadsheet (1)		
	Writing letters to tenants	Word processor / DTP (1)		
	Calculating rents for tenants	Spreadsheet (1)		
	Producing advertising flyers	DTP (1)		
	4 x 1			

Question Number	Answer	Do not accept	Additional Guidance	Mark
18(c)	Operating system			1

Question Number	Answer	Do not accept	Additional Guidance	Mark
18(d)	For two health issues: one mark for health issue and one mark for an suitable action.			
	<b>Health issue</b>	<b>Action</b>	Repeated answers	Allow specific ergonomic solutions e.g. wrist rest and ergonomic keyboard
	Back / posture problems (1)	<ul style="list-style-type: none"> <li>• Ergonomic furniture (1)</li> <li>• Adjustable seating (1)</li> <li>• Footrests (1)</li> <li>• Tilting screens (1)</li> <li>• Swivelling screens (1)</li> <li>• Frequent breaks (1)</li> </ul>		
	RSI (1)	<ul style="list-style-type: none"> <li>• Wrist rests (1)</li> <li>• Ergonomic furniture (1)</li> <li>• Adjustable seating (1)</li> <li>• Frequent breaks (1)</li> </ul>		
	Eye problems / headaches (1)	<ul style="list-style-type: none"> <li>• Anti-glare screens (1)</li> <li>• Suitable lighting (1)</li> <li>• Sunlight not on screen / blinds at window (1)</li> <li>• Focus on distant objects(1)</li> <li>• Frequent breaks (1)</li> </ul>		
	2x(1+1)			4

Question Number	Answer	Do not accept	Additional Guidance	Mark
18(e)	Three settings from: <ul style="list-style-type: none"> <li>• Window size (1)</li> <li>• Mouse(1)</li> <li>• Icon size(1)</li> <li>• Screen resolution (1)</li> <li>• Desktop contrast (1)</li> <li>• Sound volume (1)</li> <li>• Screensaver (1)</li> <li>• Desktop (image) (1)</li> <li>• Mouse click (1)</li> <li>• Power options(1)</li> </ul>			3

Question Number	Answer	Do not accept	Additional Guidance	Mark
18(f)(i)	Gigabyte			1

Question Number	Answer	Do not accept	Additional Guidance	Mark
18(f)(ii)	Any two of: <ul style="list-style-type: none"> <li>• Volatile (1)</li> <li>• Data lost when computer is switched off (1)</li> <li>• Not permanent / temporary (1)</li> <li>• Stores data / program working on (1)</li> <li>• Computer can read from and write to (1)</li> </ul>			2

Total for question 18 = 17 marks



Question Number	Answer	Do not accept	Additional Guidance	Mark																
19 (a)	Award one mark for each correct answer <table border="1"> <tr><td>Printer</td><td></td></tr> <tr><td>Scanner</td><td></td></tr> <tr><td>Internet service provider</td><td>x</td></tr> <tr><td>Broadband connection</td><td>x</td></tr> <tr><td>Chip and pin reader</td><td></td></tr> <tr><td>Modem</td><td>x</td></tr> <tr><td>Web browser</td><td>x</td></tr> <tr><td>Word processor</td><td></td></tr> </table>	Printer		Scanner		Internet service provider	x	Broadband connection	x	Chip and pin reader		Modem	x	Web browser	x	Word processor				4
Printer																				
Scanner																				
Internet service provider	x																			
Broadband connection	x																			
Chip and pin reader																				
Modem	x																			
Web browser	x																			
Word processor																				

Question Number	Answer	Do not accept	Additional Guidance	Mark
19(b)	<ul style="list-style-type: none"> <li>• email (1)</li> </ul>			1

Question Number	Answer	Do not accept	Additional Guidance	Mark
19(c)(i)	<p>Any three advantages to customers from:</p> <ul style="list-style-type: none"> <li>• Can order 24/7 (1)</li> <li>• Don't have to leave home to post a letter (1)</li> <li>• Will know if in stock(1)</li> <li>• More reliable / can't get lost in the post</li> <li>• Online discounts (1)</li> <li>• Latest offers / new arrivals / wider range / all stock (1)</li> <li>• Save postage / telephone call for sending the order (1)</li> <li>• Easy to compare prices with other sites (1)</li> <li>• Faster turnaround (1)</li> <li>• Order tracking (1)</li> <li>• Secure payment systems (1)</li> </ul> <p style="text-align: right;">3x1</p>	Automatic confirmation of order / know order is received	The question is mail order v online therefore answers relating to shops should not be accepted.	3

Question Number	Answer	Do not accept	Additional Guidance	Mark
19(c) (ii)	<p>Any three advantages to the company from:</p> <ul style="list-style-type: none"> <li>• Can receive orders 24/7</li> <li>• Fewer errors (1)</li> <li>• Orders go <b>directly</b> into the computer system / no need to input data (1)</li> <li>• Fewer staff needed (1)</li> <li>• cheaper / saves cost of brochures (1)</li> <li>• Wider customer base (1)</li> <li>• Receive payment before despatch / better cash flow (1)</li> <li>• Orders not lost in post (1)</li> </ul> <p style="text-align: right;">3x1</p>	<p>'orders processed by computer'</p> <p>Unjustified 'saves cost'</p>	<p>Computer processing responses must identify the fact that data is input directly - without the need for computer operator</p> <p>The question is mail order v online therefore answers relating to shops should not be accepted.</p>	3

Question Number	Answer	Do not accept	Additional Guidance	Mark
19 (d)	An explanation involving three of: <ul style="list-style-type: none"> <li>• Open search engine / use ISP search facility (1)</li> <li>• <b>Allow</b> 'google it' (1)</li> <li>• Enter search criteria (1)</li> <li>• Choose site from list (1)</li> <li>• Narrow search to UK sites /refine search (1)</li> </ul> 3x1	'go to google'		3

Question Number	Answer	Do not accept	Additional Guidance	Mark												
19 (e)	Any two concerns and actions: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Concern</th> <th>Action</th> </tr> </thead> <tbody> <tr> <td>Misuse of credit card(1)</td> <td>Encryption (1)</td> </tr> <tr> <td>Fraud (1)</td> <td>Encryption / secure sites (1)</td> </tr> <tr> <td>Bogus website (1)</td> <td>register with approved security system e.g. verisign (1)</td> </tr> <tr> <td>Identity theft (1)</td> <td>Spyware (1)</td> </tr> <tr> <td>Hacking (1)</td> <td>firewalls / encryption (1)</td> </tr> </tbody> </table> 2x(1+1)	Concern	Action	Misuse of credit card(1)	Encryption (1)	Fraud (1)	Encryption / secure sites (1)	Bogus website (1)	register with approved security system e.g. verisign (1)	Identity theft (1)	Spyware (1)	Hacking (1)	firewalls / encryption (1)	Repeated answers		4
Concern	Action															
Misuse of credit card(1)	Encryption (1)															
Fraud (1)	Encryption / secure sites (1)															
Bogus website (1)	register with approved security system e.g. verisign (1)															
Identity theft (1)	Spyware (1)															
Hacking (1)	firewalls / encryption (1)															

Total for question 19 = 18 marks

Question Number	Answer	Do not accept	Additional Guidance	Mark
20 (a)	One of: <ul style="list-style-type: none"> <li>• Network interface card (1)</li> <li>• Wireless adaptor (1)</li> </ul>			1

Question Number	Answer	Do not accept	Additional Guidance	Mark
20(b)(i)	Three benefits from: <ul style="list-style-type: none"> <li>• Share documents / files / folders / data (1)</li> <li>• Share peripherals / printers (1)</li> <li>• Files (to share) can be uploaded centrally (1)</li> <li>• Software can be installed easily / faster / centrally (1)</li> <li>• Can use any workstation / hotdesking (1)</li> <li>• Communicate with other workstations (1)</li> <li>• Monitor / control users (1)</li> <li>• Only 1 internet connection needed (1)</li> <li>• Terminals cheaper than stand-alones (1)</li> </ul> 3x1	share software		3

Question Number	Answer	Do not accept	Additional Guidance	Mark
20 (b)(ii)	Three ways of making data secure from: <ul style="list-style-type: none"> <li>• User names &amp; passwords (1)</li> <li>• Access rights (1)</li> <li>• Firewall (1)</li> <li>• WEP / WPA (1)</li> <li>• Encryption (1)</li> <li>• Transaction logs (1)</li> <li>• Backup (1)</li> </ul> 3x1			3

Question Number	Answer	Do not accept	Additional Guidance	Mark
20(c)(i)	A description involving any two points from: <ul style="list-style-type: none"> <li>• Network of computers (1)</li> <li>• Single organisation / private(1)</li> <li>• An internal internet (1)</li> <li>• LAN within the organisation that works in a similar way to the internet (1)</li> </ul> 2x1			2

Question Number	Answer	Do not accept	Additional Guidance	Mark
20 (c)(ii)	Two facilities from: <ul style="list-style-type: none"> <li>• Notice boards (1)</li> <li>• Central store of files (1)</li> <li>• Forms (1)</li> <li>• Copies of company policies (1)</li> </ul> <p style="text-align: right;">2x1</p>			2

Total for question 20 = 11 marks

Question Number	Answer	Do not accept	Additional Guidance	Mark
21 (a)(i)	A description including: <ul style="list-style-type: none"> <li>Scanning the photographs (1)</li> <li>Saving the electronic version from the scanning (1)</li> </ul> <p style="text-align: right;">2x1</p>			2

Question Number	Answer	Do not accept	Additional Guidance	Mark
21(a)(ii)	Two reasons for keeping backups from: <ul style="list-style-type: none"> <li>• Data can be overwritten (1)</li> <li>• Someone may accidentally erase data (1)</li> <li>• System / hardware failure / natural disaster (1)</li> <li>• Someone may access and alter data (1)</li> <li>• Virus - if explanation given (1)</li> </ul> <p style="text-align: right;">2x1</p>			2

Question Number	Answer	Do not accept	Additional Guidance	Mark
21 (a)(iii)	One device from: <ul style="list-style-type: none"> <li>• CD R / CD RW / DVD(1)</li> <li>• USB pen / USB drive (1)</li> <li>• Flash drive (1)</li> <li>• Pen drive (1)</li> <li>• Memory stick / Memory pen / Memory Card (1)</li> <li>• SD Card (1)</li> <li>• External hard drive (1)</li> </ul>	CD ROM USB floppy disk		1

Question Number	Answer	Do not accept	Additional Guidance	Mark
21 (a)(iv)	Any method from: <ul style="list-style-type: none"> <li>• Store in a fireproof safe (1)</li> <li>• Store in a different location to computer (1)</li> </ul>			1

Question Number	Answer	Do not accept	Additional Guidance	Mark
21 (b)(i)	Two of: <ul style="list-style-type: none"> <li>• Add additional keywords (1)</li> <li>• Restrict search to UK sites (1)</li> <li>• Use different search engine (1)</li> <li>• Use quotation marks (1)</li> <li>• Use Boolean (1)</li> </ul> <p style="text-align: right;">2x1</p>			2

Question Number	Answer	Do not accept	Additional Guidance	Mark
21(b)(ii)	Two of: <ul style="list-style-type: none"> <li>• CDs (1)</li> <li>• DVDs (1)</li> <li>• Online encyclopaedia (1)</li> </ul> <p style="text-align: right;">2x1</p>			2

Question Number	Answer	Do not accept	Additional Guidance	Mark
21 (b)(iii)	Two of: <ul style="list-style-type: none"> <li>• Newspapers (1)</li> <li>• Books (1)</li> <li>• Questioning people (1)</li> </ul> <p style="text-align: right;">2x1</p>			2

Question Number	Answer	Do not accept	Additional Guidance	Mark
21 (c)	An explanation involving two of: <ul style="list-style-type: none"> <li>• Check the authority of the provider (1)</li> <li>• Make sure not biased(1)</li> <li>• Relevance of information(1)</li> <li>• Check validity against info from other sites (1)</li> </ul>			2

Question Number	Answer	Do not accept	Additional Guidance	Mark		
21 (d)	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Constraint: copyright (1)</td> <td style="width: 50%;">Extension: acknowledge source (1) avoid plagiarism (1) get permission (1)</td> </tr> </table>	Constraint: copyright (1)	Extension: acknowledge source (1) avoid plagiarism (1) get permission (1)			3
Constraint: copyright (1)	Extension: acknowledge source (1) avoid plagiarism (1) get permission (1)					

Total for question 21 = 17 marks

Question Number	Answer	Do not accept	Additional Guidance	Mark
22 (a)(i)	<p>One advantage to employee from:</p> <ul style="list-style-type: none"> <li>• Less travelling (1)</li> <li>• Fit into lifestyle / flexible working(1)</li> <li>• Can relocate to suit themselves(1)</li> </ul> <p>One disadvantage to employee from:</p> <ul style="list-style-type: none"> <li>• Feeling of isolation (1)</li> <li>• Lack of social interaction (1)</li> <li>• Need self motivation (1)</li> </ul> <p style="text-align: right;">2x1</p>			2

Question Number	Answer	Do not accept	Additional Guidance	Mark
22(a)(ii)	<p>One advantage to the company from:</p> <ul style="list-style-type: none"> <li>• Smaller premises (1)</li> <li>• Can select employees from wider geographical area (1)</li> <li>• Maybe reduced employee costs (1)</li> </ul> <p>One disadvantage to the company from:</p> <ul style="list-style-type: none"> <li>• Difficult to 'team build' (1)</li> <li>• More difficult to monitor employees (1)</li> </ul> <p style="text-align: right;">2x1</p>			2

Question Number	<i>Indicative content for a discussion on the changes in the way individuals and organisations work.</i>
22 (b)	<p>Students may cover one or more aspects in depth or more in less detail.</p> <p>A well organised answer is required for high marks.</p> <p>Computers taking over the work previously done by manual workers e.g. work done in dirty / dangerous situations / repetitive tasks leading to:</p> <ul style="list-style-type: none"> <li>• fewer jobs for unskilled workers</li> <li>• fewer clerical jobs</li> <li>• move from unskilled work leads to increased need for training in other areas</li> </ul> <p><b>Increase in the number of IT jobs</b></p> <ul style="list-style-type: none"> <li>• Increasing need for training in use of new technologies / ICT</li> <li>• many existing job have increased used of ICT e.g.</li> </ul> <p><b>Improved communications globally / internally</b></p> <ul style="list-style-type: none"> <li>• movement of jobs to where cheaper labour e.g. to other countries / other areas or where workforce is more skilled</li> <li>• movement of jobs to where land / buildings cheaper</li> <li>• less need for face to face communication - creation of different methods of working e.g. increase of call centres</li> <li>• more contact by email / video conferencing/virtual meetings</li> </ul>



	<p><b>Global marketplace</b></p> <ul style="list-style-type: none"> <li>• many companies now have a web presence / sell online</li> </ul> <p><b>Flexibility in working</b></p> <ul style="list-style-type: none"> <li>• Home working - with benefits for individual and organisation</li> <li>• better contact away from office / place of work / when travelling</li> </ul>	
	<b>Mark</b>	<b>Descriptor</b>
	0	No rewardable content
Level 1	1 - 2	The candidate will have made some brief responses. Few examples will be provided. There may be a reference to different countries.
Level 2	3 - 4	The candidate will have provided a number of examples and described some aspects for individuals and some for companies / organisations. The candidate will have given some explanation for underlying causes.
Level 3	5 - 6	A well balanced discussion. Context will be clear. A good range of examples will be provided and the changes discussed. The changes for individuals and the organisations will be considered.

Total for question 22 = 10 marks

Total for section B = 84 marks