

Mark Scheme (Final)

January 2012

GCSE ICT 2010 (5IT01)

Paper 1 Living in a Digital World

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January 2012

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## 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.
- Candidate can be credited where they have given two or more correct responses in a single answer space, but have given incorrect or blank responses elsewhere.

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (a)(i)	A			(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (a)(ii)	C			(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (a)(iii)	D			(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (b)	<b>Any two from:</b> <ul style="list-style-type: none"> <li>• Rotating the screen / change the view</li> <li>• Controlling apps (e.g compass, music player, crash sensors, shake feature etc)</li> <li>• Controlling/playing games</li> <li>• Image stabilisation</li> <li>• To turn the device on</li> </ul>	<ul style="list-style-type: none"> <li>• Drop detection</li> <li>• Pedometer</li> <li>• Turn off the device</li> </ul>		(2)

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (c) (i)	<p><b>Any one from:</b></p> <ul style="list-style-type: none"> <li>• More stable connection</li> <li>• Less interference (e.g. dropped packets / loss of data)</li> <li>• Faster / it will take less time</li> <li>• More secure</li> <li>• Password not needed</li> </ul>		This question refers to a peer-to-peer connection rather than a client-server connection	(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (c) (ii)	<p><b>Any one from:</b></p> <ul style="list-style-type: none"> <li>• Can transfer anywhere <b>within range</b> (e.g. house &amp; garden)</li> <li>• Can move around (while transferring data)</li> <li>• Does not have to waste time finding / connecting cables</li> <li>• Health and Safety / no trailing wires</li> </ul>		This question refers to a peer-to-peer connection rather than a client-server connection	(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (d)	C			(1)

Question Number	Answer		Do not accept	Additional Guidance	Mark
1 (e)	<b>Feature</b>	<b>Change</b>		Do not award change without feature. Accept feature if mentioned in change or <i>vice versa</i> .	(2)
	Screen / brightness	Turn down/reduce			
	Display	Turned off after a set period			
	Screensaver	Reduce activation period			
	WiFi/Wireless	Turn off			
	3G	Turn off			
	Apps	Disable			
	Feature vibration	Turn off			
	Bluetooth	Turn off			
	GPS	Turn off			
	Volume	Lower/off			

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (f)	<b>Any one from:</b> <ul style="list-style-type: none"> <li>• Higher quality / more detail</li> <li>• Clearer (image/picture)</li> <li>• More vertical and horizontal (pixel) lines</li> <li>• More pixels (per inch<sup>2</sup> / cm<sup>2</sup> /dpi)</li> </ul>	Bigger screen	Accept: 'lots of pixels'	(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (g)	<b>Any one from:</b> <ul style="list-style-type: none"> <li>• Possible RSI</li> <li>• Eye strain</li> <li>• Finger stress / pressure on fingers</li> </ul>			(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
1 (h)	<b>Any two from:</b> <ul style="list-style-type: none"> <li>• It is free / cheaper to obtain and use</li> <li>• Users can access the source code/modify the source code</li> <li>• Community of support from other users / software is easier to develop</li> </ul>			(2)

Question Number	Answer	Do not accept	Additional Guidance	Mark
2 (a) (i)	D			(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
2 (a) (ii)	<p><b>Any two from:</b></p> <ul style="list-style-type: none"> <li>• Use keywords, (e.g. the flight's destination)</li> <li>• Use Boolean operators (e.g. AND, OR, NOT, +, -)</li> <li>• Use speech marks</li> <li>• Search by location (e.g. UK sites)</li> <li>• Search by date,</li> <li>• Search by language</li> <li>• Search type (e.g. pictures, maps, music, movies)</li> </ul>	Advanced search		(2)

Question Number	Answer	Do not accept	Additional Guidance	Mark
2 (a) (iii)	<p><b>Description:</b> Promotes / advertises / marketing (1) through:</p> <p><b>AND</b> any one of:</p> <ul style="list-style-type: none"> <li>• the sharing or distribution of a video (1)</li> <li>• using social networking sites, email etc (1)</li> <li>• less expensive methods (1)</li> </ul>		1 mark for initial point, 1 mark for additional linked point	(2)



Question Number	Answer	Do not accept	Additional Guidance	Mark
2 (b)	<p><b>Any two advantages from:</b></p> <ul style="list-style-type: none"> <li>• He can review his account history / previous bookings</li> <li>• He can receive information (e.g. flight offers / new routes) from the company</li> <li>• Rewards / loyalty programme / scheme</li> <li>• Personal details will be saved <b>for quicker ticket purchasing in future.</b></li> </ul>	<p>Quicker / Easier / to buy tickets (without expansion)</p> <p>Cheaper / discounted <b>fares</b> (as opposed to offers)</p> <p>Saves his data/details (without reference to saving time)</p>		(2)

Question Number	Answer	Do not accept	Additional Guidance	Mark
2 (c) (i)	<p><b>Any one from:</b></p> <ul style="list-style-type: none"> <li>• To verify what he typed in the first box</li> <li>• To check he typed his password correctly.</li> </ul>		Accept validation as equivalent to check	(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
2 (c) (ii)	<p><b>Any one from:</b></p> <ul style="list-style-type: none"> <li>• Choose numbers from a memorable date</li> <li>• PIN code / passcode / user ID</li> <li>• Choose a memorable image</li> <li>• Choose a memorable sound</li> <li>• Biometric (fingerprint etc)</li> <li>• CAPTCHA test</li> </ul>	Memorable phrases (such as mother's maiden name / pet's name etc)		(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
2 (d) (i)	D			(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
2 (d) (ii)	Could be a security risk / allow others to access his details/account			(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
2 (e)	B			(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
2 (f)	<p><b>Any one from:</b></p> <ul style="list-style-type: none"> <li>• Privacy law</li> <li>• Legislation/legal reasons</li> <li>• Data Protection Act</li> <li>• Good customer service/ so as not to annoy customers / Ryan might not want marketing emails</li> </ul>			(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
2 (g)	<ul style="list-style-type: none"> <li>Gets the latest content/updates/alerts/offers/news</li> </ul>			(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
3 (a)(i)	C			(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
3 (a)(ii)	A			(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
3 (b)(i)	<p><b>One description from:</b></p> <ul style="list-style-type: none"> <li>pair/connect/link the devices (1) using WiFi (1)</li> <li>Set up the phone as a router/hotspot (1) and use WiFi (1)</li> </ul>			(2)

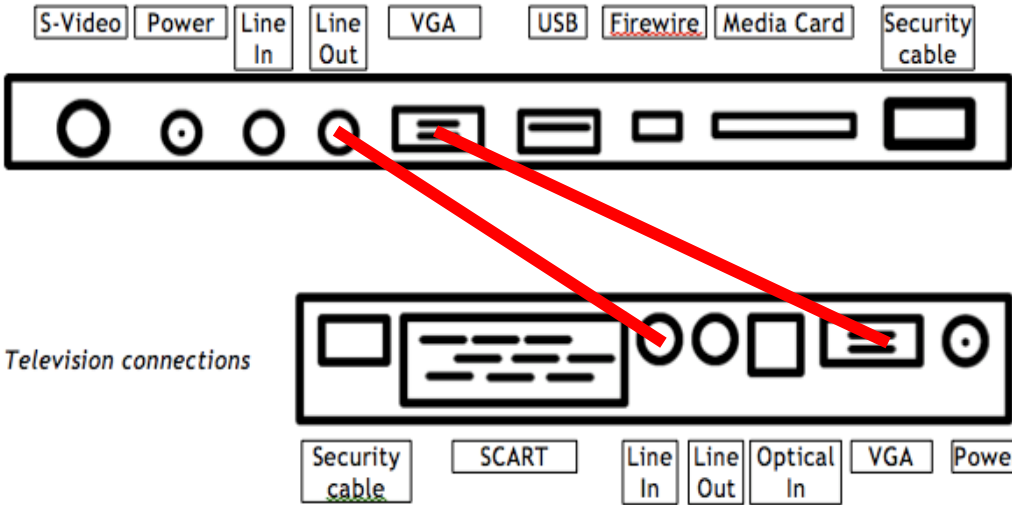
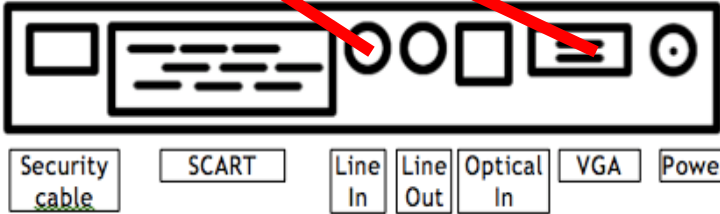
Question Number	Answer	Do not accept	Additional Guidance	Mark
3 (b) (ii)	<b>Any one from:</b> <ul style="list-style-type: none"><li>• Set an access key/password/PIN</li><li>• block unknown devices (IP/MAC filtering)</li><li>• Make sure device is not within range of other devices</li><li>• Turn WiFi off</li><li>• Hide SSID</li></ul>			<b>(1)</b>

Question Number	Answer	Do not accept	Additional Guidance	Mark
3 (b) (iii)	<p><b>Explanation:</b> As more devices (1) use the connection, the available bandwidth is reduced/less/divided (1)</p>			(2)

Question Number	Answer	Do not accept	Additional Guidance	Mark
3 (c)	<p><b>Any three ways from:</b></p> <ul style="list-style-type: none"> <li>• they can all work on / see versions of the same document</li> <li>• they can comment/feedback on/contribute to a document/image/video</li> <li>• they can hold a virtual meeting using text chat/messaging</li> <li>• use VOIP</li> <li>• use video conferencing tools</li> <li>• be informed of updates</li> </ul>	Working with others		(3)

Question Number	Answer	Do not accept	Additional Guidance	Mark
3 (d) (i)	<p><b>Any two from:</b></p> <ul style="list-style-type: none"> <li>• Watch TV from anywhere <b>as long as there is a connection</b></li> <li>• Control playback (pause/rwnd/ffwd)</li> <li>• Leave comments about shows</li> <li>• Share/recommend it to friends in-browser</li> <li>• Receive recommendations of similar shows</li> <li>• Cheaper/quicker than waiting for hardcopy (e.g. DVD) release</li> <li>• Catch up on missed programmes / watch it anytime / watch it again</li> <li>• Don't need a TV Licence <b>unless watching live stream</b></li> <li>• Save storage space (if you stream, rather than download)</li> </ul>	<ul style="list-style-type: none"> <li>• 'Free'</li> <li>• 'Don't need a TV licence', (without clarification)</li> </ul>		(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
3 (d) (ii)	<p><b>Any one from:</b></p> <ul style="list-style-type: none"> <li>• Can watch it on a bigger screen</li> <li>• Can use TV speakers (to improve sound)</li> <li>• Easier to watch with others</li> </ul>	<ul style="list-style-type: none"> <li>• Can watch in higher resolution</li> </ul>		(1)

Question Number	Answer	Additional Guidance	Mark
3 (d) (iii)	<p><i>Tablet Computer connections</i></p>  <p><i>Television connections</i></p> 	Ignore any labels.	(2)

Question Number	Answer	Do not accept	Additional Guidance	Mark
3 (e)	Filtering / IP filtering / address filtering / block the IP address	<ul style="list-style-type: none"> <li>Blocking without reference to IP address</li> </ul>	The answer will relate to IP filtering, however candidates may give a more protracted answer which will need interpretation	(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
4 (a)	B			(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
4 (b) (i)	<ul style="list-style-type: none"> <li>• (Bluetooth is) faster</li> <li>• (Increased) range</li> <li>• No need for line of sight / Infrared blocked by objects in path</li> <li>• Compatibility / the other device only has Bluetooth</li> <li>• Bluetooth is more secure</li> </ul>			(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
4 (b) (ii)	<p><b>Any two factors from:</b></p> <ul style="list-style-type: none"> <li>• Interference (signal noise)</li> <li>• Distance between devices</li> <li>• Physical barriers (walls/water sources)</li> <li>• Limited bandwidth / sharing the connection / number of downloads at the same time</li> <li>• Increased signal latency</li> <li>• Version of Bluetooth</li> </ul>	<ul style="list-style-type: none"> <li>• Strength of connection</li> <li>• File size (question relates to speed of transfer, not time taken to transfer)</li> </ul>		(2)



Question Number	Answer	Do not accept	Additional Guidance	Mark
4 (b) (iii)	<p><b>Explanation:</b></p> <ul style="list-style-type: none"> <li>Encryption randomises/encodes the data / data needs to be decoded / uses a key (1)</li> </ul> <p>So that unauthorised users cannot access the data / authorised users (with key) can read it (1).</p>			(2)

Question Number	Answer	Do not accept	Additional Guidance	Mark
4 (c)	<p><b>Explanation:</b></p> <p>To allow the event staff to authenticate/verify the owner/make sure pass belongs to the person presenting it (1) to prevent fraud/others from using it/identity theft (1)</p> <p>Award one mark <b>max</b> for answers that relate to 'so that Michael can identify his own pass' / 'lost and found' answers</p>		<p>1 mark for 'authenticate' and 1 for giving reason why.</p> <p>An explanation requires linked responses for maximum marks. Individual statement scores 1 mark max.</p>	(2)

Question Number	Answer	Do not accept	Additional Guidance	Mark
4 (d)	<p><b>Any two from:</b></p> <ul style="list-style-type: none"> <li>• Current / Average Speed</li> <li>• Estimated Time of Arrival (ETA)</li> <li>• Distance travelled/remaining</li> <li>• Distance between different runners</li> <li>• Amount of time remaining until finish.</li> </ul>	<ul style="list-style-type: none"> <li>• Alternative routes (etc.)</li> <li>• Location (it is in the question)</li> </ul>	Must be related to use in context (not motor travel)	(2)

Question Number	Answer	Do not accept	Additional Guidance	Mark
4 (e)	<p><b>Explanation:</b></p> <p>User's location is published / accessible (1):</p> <ul style="list-style-type: none"> <li>• and this information might be shared (1)</li> <li>• someone might use the data inappropriately (1)</li> </ul>		Must include <i>risk</i> for 2 <sup>nd</sup> mark	(2)

Question Number	Indicative content
4 (f) QWC (i-iii)	<p><b>Suggestions of issues people should be aware of when travelling away from home with personal digital devices:</b></p> <ul style="list-style-type: none"><li>• Portability – weight / size / robustness</li><li>• Multi-functionality</li><li>• Compatibility</li><li>• Power adapters / chargers</li><li>• Region restrictions</li><li>• Mobile networks</li><li>• Data / roaming charges</li><li>• Connectivity</li><li>• Battery life</li><li>• Sociocultural impacts</li><li>• Additional storage</li><li>• Availability of the internet</li><li>• Security of the device / insurance</li><li>• Personal security</li></ul>

- 1) level is set based on **content**
- 2) position in level is set based on the quality of **discussion**
- 3) if at top of level (i.e. your mark is now 2,4,or 6 marks) and the candidate's response *does not* match the Quality of Written Communication (**QWC**) descriptor for that level, then markers must reduce the mark by 1.  
NB – QWC can only be applied to *reduce* the mark *within a level*.

	Mark		Descriptor
	<b>0</b>		No rewardable content
<b>Level 1</b>	<b>1-2</b>	Content	The candidate will suggest a <b>limited number</b> of considerations, with <b>limited reference</b> to using devices away from home. Responses will include <b>some accurate</b> information.
		Discussion	Candidate's responses will be <b>general</b> .
		QWC	They have used <b>everyday language</b> and their response <b>lacks clarity and organisation</b> . Spelling, punctuation and the rules of grammar are used with <b>limited</b> accuracy.
<b>Level 2</b>	<b>3-4</b>	Content	The candidate will suggest a <b>number of</b> considerations, <b>mostly relevant</b> to using devices away from home. The candidate's responses will be <b>mostly accurate</b> .
		Discussion	There is <b>a limited attempt to justify</b> the considerations they suggest
		QWC	They have used <b>some specialist terms</b> and their response shows <b>some focus and organisation</b> . Spelling, punctuation and the rules of grammar are used with <b>some</b> accuracy.
<b>Level 3</b>	<b>5-6</b>	Content	The candidate will suggest <b>a range</b> of considerations, <b>relevant</b> to using devices away from home. The candidate's responses will be <b>factually accurate</b> .
		Discussion	The suggested considerations are <b>clearly justified</b> .
		QWC	They have used <b>appropriate specialist terms consistently</b> and the response shows <b>good focus and organisation</b> . Spelling, punctuation and the rules of grammar are used with <b>considerable</b> accuracy.

Question Number	Answer	Do not accept	Additional Guidance	Mark
5 (a)	B			(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
5 (b)	<b>Description:</b> Media/audio/video (1) (available) online (1)		Must state media/audio or video (for any mark)  No mark available for online on its own	(2)

Question Number	Answer	Do not accept	Additional Guidance	Mark
5 (c)	A			(1)

Question Number	Answer	Do not accept	Additional Guidance	Mark
5 (d)	<b>Any two from:</b> <ul style="list-style-type: none"> <li>• Affordability</li> <li>• Lack of knowledge / skills</li> <li>• Disabilities</li> <li>• Remoteness / Restricted infrastructure e.g. broadband/power/phone signal</li> <li>• Cultural factors (religion / gender inequality / age)</li> <li>• Political / government restrictions (lack of e-democracy)</li> </ul>	Lack of equipment/ hardware/ software		(2)

Question Number	Answer	Do not accept	Additional Guidance	Mark
5 (e)	<p><b>Explanation to include two from:</b></p> <p>He must not use images without permission of the copyright holder/owner (1):</p> <ul style="list-style-type: none"> <li>• as he would be breaching Copyright (1)</li> <li>• to protect intellectual property rights (1)</li> </ul>		<p>An explanation requires linked responses for maximum marks.</p> <p>Individual statement scores 1 mark max.</p>	(2)

Question Number	Answer	Do not accept	Additional Guidance	Mark
5 (f)	<p><b>Explanation must include:</b></p> <p>This allows him to control/decide/filter which comments are published / to remove/delete comments/content/links (1):</p> <p>And <b>one</b> from:</p> <ul style="list-style-type: none"> <li>• as some comments could be offensive/rude/malicious/spam (1)</li> <li>• such comments would not be appropriate for inclusion (1)</li> </ul>		<p>An explanation requires linked responses for maximum marks.</p> <p>Individual statement scores 1 mark max.</p>	(2)

Question Number	Answer	Do not accept	Additional Guidance	Mark
5 (g)	<p><b>Explanation to include:</b></p> <ul style="list-style-type: none"> <li>• Adds metadata/keyword (1) to the post which allows it to be categorised/indexed (1) to facilitate searching or viewing author's popular themes (1)</li> </ul>	Tracking popular categories. ( <i>This is a benefit to authors</i> )		(2)

Question Number	Indicative content
5 (h)	<p><b>Positives:</b></p> <ul style="list-style-type: none"> <li>• Gives more people a voice / more people can publish – more freedom of speech</li> <li>• Increased availability of information</li> <li>• Increase in choice of service providers (locally and globally)</li> <li>• News stories can break more quickly</li> <li>• Relative small cost lowers participation barrier</li> <li>• Competition drives traditional publishers to innovate with their provision of online content</li> <li>• News becomes interactive</li> <li>• News can be accessed based on personal preference</li> <li>• Readers can share articles with networks of friends</li> <li>• Stories / information popularised by public, not editors</li> <li>• e-democracy - information is made available to/from politically 'sensitive' areas</li> <li>• <i>Wikileaks</i> style anonymity increases accountability (of governments etc.)</li> </ul> <p><b>Negatives:</b></p> <ul style="list-style-type: none"> <li>• More people can publish – dilution of content / lack of credibility</li> <li>• More difficult to filter through more content. (Students may describe this as “information overload”)</li> <li>• News sensationalised by public, not editors</li> <li>• More difficult to track publishers of sensitive / libellous material</li> <li>• Limits frame of reference</li> <li>• Intellectual property rights of traditional publishers is put at risk</li> </ul>

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NB – QWC can only be applied to *reduce* the mark *within a level*.

	Mark		Descriptor
	<b>0</b>		No rewardable content
<b>Level 1</b>	<b>1-2</b>	Content	The candidate will produce a <b>limited number</b> of simple statements, with <b>limited reference</b> to news and information services. Responses will include <b>some accurate</b> information.
		Discussion	Candidate's responses will be <b>general</b> .
		QWC	They have used <b>everyday language</b> and their response <b>lacks clarity and organisation</b> . Spelling, punctuation and the rules of grammar are used with <b>limited</b> accuracy.
<b>Level 2</b>	<b>3-4</b>	Content	The candidate will suggest a <b>number</b> of impacts, <b>mostly relevant</b> to the use of news and information services. They may focus on only <b>negative or positive</b> impacts. The candidate's responses will be <b>mostly accurate</b> .
		Discussion	There is <b>a limited attempt to justify the impacts</b> they suggest.
		QWC	They have used <b>some specialist terms</b> and their response shows <b>some focus and organisation</b> . Spelling, punctuation and the rules of grammar are used with <b>some</b> accuracy.
<b>Level 3</b>	<b>5-6</b>	Content	The candidate will suggest <b>a range</b> of impacts, <b>relevant</b> to use of news and information services. They consider both <b>negative and positive</b> impacts. The candidate's responses will be <b>factually accurate</b> .
		Discussion	The suggested impacts are <b>clearly justified</b> .
		QWC	They have used <b>appropriate specialist terms consistently</b> and the response shows <b>good focus and organisation</b> . Spelling, punctuation and the rules of grammar are used with <b>considerable</b> accuracy.



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