



Mark Scheme (Results)

Summer 2016

Pearson Edexcel International GCSE
in ICT (4IT0)

Paper 1: Written paper

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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.
- Mark schemes will indicate within the table where, and which strands of QWC, are being assessed. The strands are as follows:
 - i) ensure that text is legible and that spelling, punctuation and grammar are accurate so that meaning is clear*
 - ii) select and use a form and style of writing appropriate to purpose and to complex subject matter*
 - iii) organise information clearly and coherently, using specialist vocabulary when appropriate.*

Question Number	Answer	Mark
1	D	(1)

Question Number	Answer	Mark
2	C	(1)

Question Number	Answer	Mark
3	A	(1)

Question Number	Answer	Mark
4	B	(1)

Question Number	Answer	Mark
5	C	(1)

Question Number	Answer	Mark
6	B	(1)

Question Number	Answer	Mark
7	A	(1)

Question Number	Answer	Mark
8	D	(1)

Question Number	Answer	Mark
9	B	(1)

Question Number	Answer	Mark
10	A	(1)

Question Number	Answer	Mark
11	B	(1)

Question Number	Answer	Mark
12	C	(1)

Question Number	Answer	Mark
13	D	(1)

Question Number	Answer	Mark
14	A	(1)

Question Number	Answer	Mark
15	C	(1)

Question Number	Answer	Mark
16	C	(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17(a)	Any one from: <ul style="list-style-type: none"> • Presentation (software) (1) • Multimedia (software) (1) • Web authoring (software) (1) 	PowerPoint or other named packages		(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17(b)(i)	Any one from: <ul style="list-style-type: none"> • Keyboard (1) • Touch screen (1) • On screen keyboard (1) • Microphone (1) • Graphics pen (1) • Stylus (1) 			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17(b)(ii)	Microphone (1)			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17(c)	Any two from: <ul style="list-style-type: none"> • Headphones / earphones (1) • Speakers (1) 			(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17(d)	Any two from: <ul style="list-style-type: none"> • (Digital) projector (1) • Large screen / large monitor / large screen TV (1) • (interactive) whiteboard / smartboard (1) 			(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17(e)	Any two from: <ul style="list-style-type: none"> • Wi-fi (1) • Bluetooth (1) • Infrared / IR (1) 			(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17(f)(i)	Any two of: 1. Files may become corrupt (1) 2. Files may be maliciously deleted (1) 3. Files may be accidentally deleted (1) 4. Hardware failure (1) 5. Hardware damage (1) 6. Hardware theft (1)	'deleted' on its own Reference to deliberate changes to files	Allow 'virus/malware' if neither MP1 or MP2 awarded	(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17(f)(ii)	Any one from: <ul style="list-style-type: none"> • CD (1) • DVD (1) • Blu-ray (1) 			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17(f)(iii)	Any one from: 1. USB pen (1) 2. USB stick (1) 3. USB/flash/thumb/pen drive (1) 4. Memory stick (1) 5. SD Card (1) 6. External SSD (1) 7. Flash disc (1)	USB on its own		(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17(f)(iv)	<p>An explanation involving one point with an appropriate linked expansion:</p> <ol style="list-style-type: none"> Flash memory devices (generally) have a larger capacity (1) can store more (files/photos) than an optical disc /photo files are large (1) Flash memory devices are more robust (than optical discs) (1) files/data less likely to be damaged/corrupted/cannot be accessed (1) Flash memory devices have faster read/write speeds (1) quicker to load/save large files (1) 	Reference to portability.	Expansion and identification can be reversed	(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17(g)(i)	<p>Any one from:</p> <ol style="list-style-type: none"> Attachment (1) Embedded photo (1) Paste/insert photo (in email body) (1) Insert file (1) 			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17(g)(ii)	Send using BCC / Blind Carbon Copy (1)	CC		(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17(g)(iii)	Any one from: 1. (Set up/use) a group/ mailing list (1) 2. Select from address book/contact list (1)		MP2 - responses must show evidence of a selection from a list.	(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18(a)	Local Area Network / LAN			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18(b)(i)	Any two from: 1. Numbers and letters (1) 2. Upper case and lower case letters (1) 3. Includes symbols (1) 4. A minimum of 8 characters (1) 5. Not obvious e.g. own name (1) 6. Not just a single word (1)			(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18(b)(ii)	Any two from: 1. Do not write the password down (1) 2. Written passwords should be kept secure (1) 3. Do not let others see you entering the password (1) 4. Do not tell others the password (1) 5. Change the password regularly (1) 6. Log out of the computer (1) 7. Use a password manager system (with complex master password) (1)			(2)

	8. Do not use the same password for multiple accounts			
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Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18(c) (i)	<p>An explanation from:</p> <ul style="list-style-type: none"> Limits access to files / different groups get different levels of access (1) and what they can do with them (edit, read etc) / define file permissions (1) 	Access by unauthorised users		(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18(c) (ii)	<p>Any two from:</p> <ol style="list-style-type: none"> Students will not be able to access administrative files / teachers files (1) Students will only be able to access their own files / not access other student files (1) All users will have read / write access to their own files (1) Students will have read only access to files uploaded by teachers for them (1) Teachers and admin staff may not be able to edit each other's files (1) Teachers may be able to access (admin) files about students (1) 		Allow specific examples that match the MP	(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18(d)	Any three from: <ol style="list-style-type: none"> 1. Access / update student data (1) 2. Share worksheets / teaching resources with other teachers (1) 3. Share information via notice boards (1) 4. Access administration documents (1) 5. Access educational information stored internally (1) 6. Communicate with other staff / parents (1) 	Reference to exchanging information / communicating with students	The question is about the college intranet NOT the internet	(3)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18e(i)	Ergonomic			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18e(ii)	Any two from: 1. Adjustable height (1) 2. Adjustable / tiltable back support (1) 3. Removable / adjustable arm rests (1) 4. Five prong base (caster) (1) 5. Contoured seat (1) 6. Include footrest (1) 7. Brakes on casters (1) 8. All adjustments / controls should be easy/convenient to use (when seated) (1)			(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18e(iii)	Any two from: <ol style="list-style-type: none"> 1. Ensure cables are put in trunking / make sure there are no trailing cables (1) 2. Provide (storage) space for bags etc (1) 3. Ensure sockets aren't overloaded / provide adequate number of sockets (1) 4. Provide (specialist) fire extinguishers for electrical fires (1) 5. Clearly identify fire escapes (1) 	Answers relating to health issues		(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18f(i)	Any one from: <ol style="list-style-type: none"> 1. Fingerprint/thumbprint (1) 2. Retinal/iris/eye (1) 3. Face recognition (1) 4. Palmprint / handprint (1) 5. Voice/speech (1) 	Finger / thumb / palm / hand without 'print'		(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18f(ii)	Any one from: 1. No need for users to carry ID/ do not have to remember password etc. (1) 2. Person has to present / cannot be misused/stolen/guessed (1) 3. Code is unique / cannot be changed (1)	Answers relating to unauthorised access		(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18f(iii)	Any one from: 1. Technology is not always accurate / may not read correctly (1) 2. System failure (1) 3. (Temporary) injuries can prevent the system working (1)			(1)

Question Number	Indicative Content
18g	<p>The candidates should consider the factors relating to their personal safety when using the internet.</p> <p>Factors to consider</p> <ul style="list-style-type: none">• Take care when posting personal information online – e.g. address, email address or mobile number.• Think carefully before posting photos or videos of yourself. Once online it's possible that anyone can see them and may be able to download them. They are not your property anymore.• Keep the privacy settings on social networking sites as high as possible.• Be wary when communicating with people you don't know. Remember that not everyone online is who they say they are• Don't meet up with people you've met online. Speak to your parents/carers/other responsible adult about people suggesting you do• Think carefully about what you say before you post something online. Remember that what you say may be misinterpreted or may offend others.• Respect other people's views, even if you don't agree with someone else's views doesn't mean you need to be rude• If you see something online e.g. adult web sites, racism, extreme views or others that make you feel uncomfortable, unsafe or worried: leave the website, turn off your computer if you want to and tell a trusted adult immediately.• Cyberbullying, tell a trusted adult immediately.

Level	Mark	Descriptor
	0	No rewardable material.
1	1-2	A limited number of points are made, but are not expanded; or one example may be given with some detail added.
2	3-4	Several examples are given, some of which have been expanded. The responses may be in the form of a list.
3	5-6	The candidate has identified relevant points, some of which are expanded and at least one of which is discussed in detail. The discussion uses specialist terms consistently and the response shows good focus and organisation.

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19a(i)	Any two from: 1. No need to learn code (1) 2. Less likely to make mistakes using design view (1) 3. Can see the page as it will look / WYSIWYG (1) 4. Easier to rearrange items / make changes to a page (1) 5. Easier to clone / reuse page components (1)	` Easier' without qualification	Accept programming in MP1	(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19a(ii)	Any two from: 1. Hotspots (1) 2. Hyperlinks / hypermedia link (1) 3. Menus (1) 4. Navigation bar (1) 5. (Navigation) buttons (1)	Links without expansion		(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19a(iii)	<p>An explanation from:</p> <ol style="list-style-type: none">1. ISP will host/store website (1) on their web server (1)2. ISP provides a web server (1) to host/store website (1)3. ISP provides tools to move/upload website (1) to web server (1)4. ISP offers management tools / online development services (1) to help create web page (1) <p>Award 2 marks for:</p> <p>ISP offers rental / purchasing / managing / provision, of domain names (2)</p>			2

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19b	Any two from: 1. Posts on social network sites e.g. Facebook (1) 2. Adding details to search engine listing e.g. Google places (1) 3. Add keywords/(meta) tags to website (1) 4. Adding details to directories e.g. yellow pages (1) 5. Creating a blog / posting on other people's blogs (1) 6. Ads or pop-ups on other company's websites (1) 7. Using targeted emails (1) 8. Pay for position on search engine (1)	Do not allow 'potential customers' for MP7	Allow any other appropriate on-line method.	(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19c(i)	Any three from: 1. (Access to) a database of products (1) 2. 'Shopping cart' / checkout facility (1) 3. A secure payment system (1) 4. (Automated / email) confirmation system (1) 5. Terms and conditions / legal obligations (1)	A database / storage system for customer data	Allow any reference to product range for MP1	(3)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19c(ii)	Encryption (1)			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19d(i)	(Web) browser (1)			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19d(ii)	Search engine (1) Web directory (1)			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19d(iii)	Filter software (1) Firewall (1) Parental control software (1)			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
20a(i)	Any one from: • Wireless access point (1) • (Wireless) router (1)			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
20a(ii)	Any one from: • IP address (1) • MAC address (1)			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
20b	Any three from: 1. Can share the printer/peripherals (1) 2. Can share the internet connection (1) 3. Can share files/photos/documents (1) 4. Can communicate between PCs (1) 5. Can perform backup from one PC to the other (1)			(3)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
20c(i)	Any two from: Wired connections: 1. are more secure/ easier to make secure (1) 2. are not subject to interference from walls/physical objects (1) 3. are more stable (1) 4. do not lose bandwidth / data transfer rate over distance / (may) have a bigger range (1) 5. have greater bandwidth / data transfer rate (that allows media streaming / multiple users) (1)	Faster		(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
20c(ii)	Any one from: Wired connections: 1. are more difficult to install/ set up (1) 2. are less flexible / limited locations (1) 3. (each connection point) can only be accessed by one device (1) 4. not all devices can connect (to a wired network) e.g. tablets, phones (1)			(1)

Question Number	Answer		Do Not Accept	Additional Guidance	Mark
20d	Malicious action	How to reduce the risk			
	Malware (1)	1. Install / keep updated antivirus software (1) 2. Don't open / download email attachment from unknown senders (1) 3. Don't click on pop-ups (1) 4. Don't download from untrustworthy websites (1)		Allow different types of malware e.g. virus, Trojan, worm, ransomware	
	Hackers (1)	Firewall (1)			
	Phishing / pharming (1)	1. Don't reply to suspicious emails (1) 2. Don't open links in emails from unreliable sources (1)			
	Social engineering (1)	Don't allow untrusted access to your network/PC (1)			(4)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
21a	<p>Any three from:</p> <ol style="list-style-type: none"> 1. Searching for information is usually quicker (1) 2. Easier to carry about / store as are lighter / smaller (1) 3. Easier to replace if lost or damaged (1) 4. Quality of graphics is usually better (1) 5. May include moving images / video / audio (1) 6. Environmentally friendly (1) 	'Easier to carry' without expansion	Do not allow 'navigate' for MP1	(3)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
21b	<p>Copyright (1)</p> <p>Acknowledge sources (1)</p> <p>Include bibliography (1)</p> <p>Include references in texts (1)</p> <p>Comply with fair use / Copyright Act(1)</p>		<p>Allow any condition of the Copyright Act</p> <p>Do not award method mark if constraint is incorrect</p>	(4)
	<p>Plagiarism (1)</p> <p>Do not copy other people's work (1)</p> <p>Write your own material (1)</p>			

Question Number	Indicative Content
21c	<p>The factors that should be considered when selecting information from an internet reference site.</p> <p>Factors to consider:</p> <p>Accuracy</p> <ul style="list-style-type: none"> • Is the information accurate • Can the source be verified • Is the information taken from a site which can be freely edited <p>Bias</p> <ul style="list-style-type: none"> • Has the writer got a bias towards a particular cause / is the writer trying to influence the student's views <p>Relevance / Level of detail</p> <ul style="list-style-type: none"> • Is the level of detail adequate and relevant to the research task • Too much detail may be difficult for the student to understand / may take a long time to go through • Too little detail and the student may not cover necessary points <p>Completeness</p> <ul style="list-style-type: none"> • Does the information include all of the necessary information <p>Age</p> <ul style="list-style-type: none"> • Out of date information may be irrelevant • Out of date information may now be incorrect <p>Source</p> <ul style="list-style-type: none"> • Check a number of sources • Ask teachers for recommended site / sources • Check the authority of the source

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