



Mark Scheme (Results)

Summer 2015

Pearson Edexcel International GCSE
ICT (4IT0) Paper 01

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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	A	(1)

Question Number	Answer	Mark
3	D	(1)

Question Number	Answer	Mark
4	C	(1)

Question Number	Answer	Mark
5	C	(1)

Question Number	Answer	Mark
6	D	(1)

Question Number	Answer	Mark
7	B	(1)

Question Number	Answer	Mark
8	A	(1)

Question Number	Answer	Mark
9	D	(1)

Question Number	Answer	Mark
10	B	(1)

Question Number	Answer	Mark
11	C	(1)

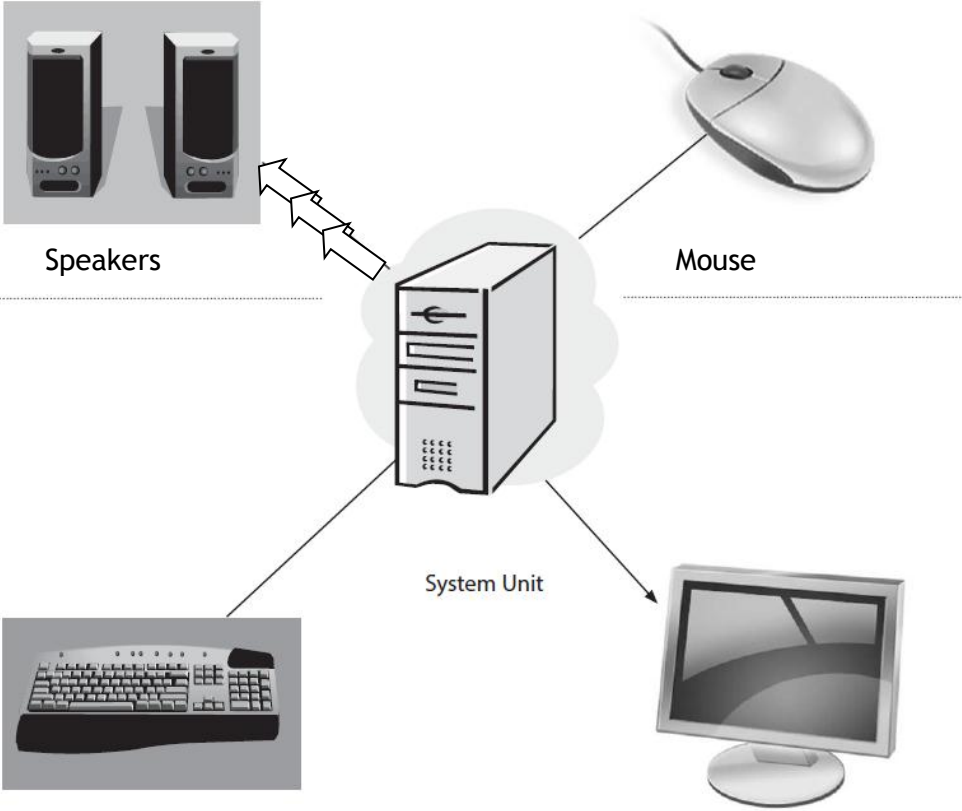
Question Number	Answer	Mark
12	D	(1)

Question Number	Answer	Mark
13	C	(1)

Question Number	Answer	Mark
14	C	(1)

Question Number	Answer	Mark
15	A	(1)

Question Number	Answer	Mark
16	C	(1)

Question Number	Answer	Mark
17(a)	Award one mark for each device and one mark for an arrow showing the direction of data flow  The diagram shows a central 'System Unit' (tower) connected to four peripheral devices: 'Speakers', 'Mouse', 'Keyboard', and 'Monitor'. Arrows indicate the direction of data flow: an arrow points from the System Unit to the Speakers; an arrow points from the Mouse to the System Unit; an arrow points from the System Unit to the Keyboard; and an arrow points from the System Unit to the Monitor.	(6)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17(b)(i)	Terabyte		Allow terabytes	(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17(b)(ii)	4.2 GHz			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17(b)(iii)	Any two from: 1. CD drive (1) 2. DVD drive (1) 3. USB drive / memory stick / flash drive (1) 4. Blu-ray drive (1) 5. External / portable hard drive /hard disk (1) 6. Floppy disc drive (1) 7. SD drive / reader (1)		Do not allow CD / DVD / Blu-ray / USB on their own. Must have device name e.g. USB drive. Accept any sensible variation on USB drive.	(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17(b)(iv)	One from: 1. Gaming / (video) games (1) 2. Graphics package / drawing package (1) 3. Photo / image editing (1) 4. CAD (1) 5. Video / TV streaming (1) 6. Video editing (1) 7. Maths based applications (1) 8. BitCoin mining (1) 9. 3D (applications) (1)	Trade names e.g. Photoshop		(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17(b)(v)	An explanation including two of the following: 1. RAM holds software and data being used (1) 2. Providing faster access (to software and data) than hard drive (1) 3. Large RAM allows multitasking (1)			(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17(b)(vi)	Any two of: 1. RAM is volatile (must be constantly refreshed) / lost when computer is switched off / ROM is permanent (1) 2. RAM can be read and written to / ROM is read only / only EPROM can be erased (1) 3. RAM is faster than ROM (1) 4. RAM is more expensive than ROM (1)		Accept 'edit' as 'rewrite'	(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18(a)	One from: Scanner (1) Digital camera (1) Webcam (1)			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18(b)	One from: Attachment (1) Insert image into body text / allow HTML formatting (1)			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18(c)	An explanation including two of the following: • The sensor (in the printer) detects there is no paper (1) • A signal / message / interrupt is sent to the PC / OS (1) • System software / system tools sends the message to screen (1)			(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18(d)	Application(s) (software)			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18(e)	Any two of: 1. Accurate measurements / precise details / use precision tools (1) 2. Easily change variables (1) 3. View / create in 3D (1) 4. See what the designs would look like on a model / preview final product (1) 5. Add / edit material effects / patterns / textures / colour (1) 6. Use library of shapes (1) 7. Vector graphics / (unlimited) zoom (1) 8. Resize / edit / erase component (1) 9. Multiple light sources (1) 10. Can send items to 3D printer (1)	Rotate / resize / crop images	Allow other sensible features of CAD.	(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18(f)	Any two of: 1. (Set up) user accounts / profiles (with passwords) (1) 2. Access rights / security policy (1) 3. Protect files / folders with password (1) 4. Hidden folders / files (1) 5. Save to removable storage / external hard drive / flash drive (1) 6. Use cloud / remote storage (1) 7. Encrypt the files / her part of the hard disk (1)			(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18(g)(i)	Any two of: 1. screen resolution (1) 2. display settings / brightness (1) 3. font size / icon size (1) 4. use magnifier / zoom in (1) 5. use narrator / audio description (1) 6. speech recognition (1) 7. on-screen keyboard (enlarged) (1) 8. calibrate colour / change colour scheme (1) 9. (adjust thickness of) blinking cursor (1) 10. (adjust thickness of) focus rectangle (1) 11. (adjust thickness of) windows border (1) 12. mouse settings (1)	Do not accept contrast – is given in question.	Ignore 'increase / decrease' before resolution / brightness etc	(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18(g)(ii)	Any one from: 1. Microphone (1) for verbal input / use with speech recognition (1) 2. Braille keyboard (1) for text input (1) 3. Braille printer (1) for text output (1) 4. Braille screen display (1) to convert text to Braille (1) 5. Speakers / headphones (1) audio output / for use with narrator (1) 6. Larger monitor (1) display larger text etc (1) 7. High resolution monitor (1) for clear display (1) 8. Touch screen / concept keyboard (1) for ease of input / access (1)	General uses of devices not related to visual impairment.	Expansion must relate to the device. Accept any appropriate wording for verbal input (with microphone).	(2)

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

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19(b)	Any one from: • Hub (1) • Switch (1) • Router (1)			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19(c)	(Network) Operating System (1)			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19(d)	Any one from: 1. Network (interface) card / NIC (1) 2. Network adapter (1) 3. LAN adapter (1) 4. Ethernet adapter / socket / port (1) 5. RJ45 adapter / socket / port (1)			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19(e)(i)	Wireless access point / WAP (1) Wireless router (1) Wi-fi router (1)			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19(e)(ii)	Any two from: • Wired signals have a greater (maximum) range (1) • Distance from the WAP / server / router has a lesser / no effect on wired signals (1) • Wired signals are not affected by objects such as walls (1) • The number of users has a smaller effect on wired signals / contention (1) • Wired transmits data faster than wireless / bigger bandwidth (1) • Wired signals are more reliable / less interference problems (1) • Wired signals are more secure (1) • Wired systems have less (fewer) setup / configuration problems (1)		Do not award twice for reverse arguments.	(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19(e)(iii)	Any two from: • Bluetooth has a shorter range / distance than wi-fi (1) • Fewer devices have Bluetooth connectivity (1) • Bluetooth has slower transmission rate / smaller bandwidth (1) • Bluetooth is less secure (1)		Do not award twice for reverse arguments.	(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19(f)	Any three from: 1. They will be able to access their files / account from any workstation (1) 2. They will only be able to access their own / shared / authorised files / others won't be able to access their files (1) 3. They will be restricted in the software they can access (1) 4. They will be restricted in the hardware they can access (1) 5. The systems settings they can change will be restricted / limited / they will be able to change / personalise (some) settings to suit themselves (1) 6. They will be restricted in what they can add / remove from the network (1)			(3)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19(g)(i)	Any one explanation from: • Compare files coming into the computer (1) against known virus codes (signatures) / database of virus files (1) • Monitors programs for suspicious behaviour (1) quarantines / flags as dangerous (1) • Scans computer / media for malicious files (1) alerts user if issues identified (1)		Accept logical answers that combine the two responses.	(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19(g)(ii)	Any two from • Don't download from unreliable / untrustworthy sites (1) • Don't click on links in emails unless you trust the sender (1) • Don't open email attachments unless you trust the sender (1) • Enable browser security / site blocking options (1) • Don't use portable storage devices from unreliable sources (1) • Don't give users admin privileges / ability to install software (1) • Install / use a hardware firewall (1)			(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19(h)	Two appropriate descriptions from: • Save a file to a central location (1) all have access / can make amendments (1) • Use network messaging system (1) to provide comments (securely) (1) • Will have access to the same software (version) (1) no compatibility issues (1) • Can use collaboration / team-working software (1) to maintain document integrity / control multiple access (1) • Can use version control / logging software (1) to keep track of versions / changes (1)	Communicate over the network.		(4)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
20(a)(i)	Any three of: 1. May not have access to computer / internet / technology / may not be computer literate / not familiar with internet shopping (1) 2. Need (face to face) guidance on e.g.: • (technical) phone issues (1) • packages / most appropriate 'deals' to suit needs (1) • benefits of individual phones / comparisons (1) 3. Want to try out the phones / help with set up (1) 4. May not have a bank / credit card / want to pay cash (1) 5. Want a shop to return to if they have problems (1) 6. Do not have to wait for delivery / pay for postage (1)	Any answers referring to: Security of data. Items not as seen on website. Nothing of the quality of the phone.		(3)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
20(a)(ii)	Any three from: • Check that it is a secure site / look for the padlock (verisign) (1) • Check it is using HTTPS / using encryption for data transfer (1) • Check you have not been redirected / website name matches your expectation (1) • Check that 'share my details' is unchecked			(3)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
20(b)	Three methods from: 1. Check the data entry is correct (with the customer in the shop or online) / against the original data entry form / verification (1) 2. (Periodically) ask the customer to confirm / update the data (1) 3. Set the system to only accept valid data / validation (e.g. check the postcode is in correct format) (1) 4. Ask for additional evidence / check customer details against documentation / database (1)			(3)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
20(c)	Any two from 1. The user must select the features / connectivity / memory they want (1) 2. Fewer results will be produced / won't need to look through so many / will only be given an appropriate list (1) 3. The search will be much faster / the customer will save time (1) 4. No typing errors (1)			(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
20(d)(i)	Any two from • The reviews may not be genuine / may have been made up (1) • Writers may be biased (1) • Writers may be expressing personal opinions (non expert) (1) • Poor reviews may have been removed (1)	Reviews may be incorrect / out of date		(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
20(d)(ii)	Any two from • Look on manufacturer's / other selling websites (1) • Look at independent review (non selling) sites, e.g. Which, Techradar (1) • Look at discussions on (expert) forums (1) • Check in store (1)			(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
20(e)(i)	Any two from • Wider customer base (1) • Easily adjust own prices / special offers/ can highlight slow moving stock / reduce prices (1) • Can build database of visitors (via cookies) not just purchasers (1) • Can hold / supply wider range of stock (1)	Answers which cannot be applied to mobile phones		(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
20(e)(ii)	Any two from • Cost to maintain website / host server / hosting (1) • Risk of online fraud (1) • Increase in competition from other similar companies (1) • Must follow legal requirements for distance selling (1) • Delivery costs / need to organise delivery (1)			(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
21(a)	Gateway / Router / Modem / Bridge (1)			(1)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
21(b)	Any two from: • Broadband (1) • Satellite (1) • VPN (1) • Wi-fi (1) Accept: • 2G / 3G / 4G / GSM / HSPA (mobile broadband) (1)	Mobile broadband on its own		(2)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
21(c)	One mark for the method. Max two marks for descriptions.			
	Blog (1)	Post messages about a particular topic (1) 'Enable comments' for reply (1)		
	Video / tele conferencing / VOIP (1)	Use (web cam) & microphone (1) Real time / interactive discussions (1) Create group calls (1)		
	Multi media / video chat (1)	Use web cam & microphone (1) Real time / interactive discussions (1)		
	Newsgroup / bulletin board / forum (1)	Post a message for others to read (1) Topics identified by a thread (1)		
	Text chat (1)	Interact in real time (1) Can see text responses from others currently online (1) Create groups (1)		
	Social networking sites (1)	Post a message for others to read (1) Conversation held as threads (1) Create groups (1)		(6)

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
21(d)	A discussion including at least two from: • Need permission / licence to use the information (1) • Must acknowledge sources (1) • Is the information copyright free (1) • If copyright, is it covered by 'fair use' exemptions (1) • Avoid plagiarism (1)			(2)

Question Number	Indicative Content
21e	Advantages • Will be able to use the device as a research tool / search internet. • Students can access the internet anywhere on the site / not necessarily restricted to a classroom / not all rooms have computers. • Students can access the internet in their free time not just during lesson. • Can carry on using device at home. • May have office applications installed which can be used to make notes. • College may not have enough / many computers. • Data can be transferred to cloud storage. • Have friends as contacts so can share resources • Many education apps available to aid learning. • Can take advantage of QR codes on learning materials from published resources in college. Disadvantages • May use device at an inappropriate time. • May use device for inappropriate actions, e.g. use of cameras in changing rooms / videoing teacher.

		• Students could become distracted e.g. chatting / texting / gaming etc. • May give students increased opportunities to cyber bully. • Students may feel isolated if they don't have one — increasing the chance of cyber bullying. • Families may be pressurised into buying them. • Cost implications of devices. • Phones may go off in lessons - distraction for other students and teachers. • Risk of devices being lost/stolen. • May not be able to print.
Level	Mark	Descriptor
	0	No rewardable material.
1	1 - 2	The candidate will have produced brief responses. The answer is likely to be in the form of a list. They will have considered at least one disadvantage but possibly no advantages. Only a limited number of points will have been considered. Very limited understanding will be shown.
2	3 - 4	The candidate will have considered both advantages and disadvantages, although the discussion is likely to be one sided, probably concentrating on disadvantages. Points will be described with limited detail and the response is likely to be unstructured.
3	5 - 6	The discussion will show an understanding of the issues, with points made described in detail. The discussion will involve advantages and disadvantages and will be balanced. It will make a number of useful points that show a clear understanding of the issues.