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Mark Scheme (Results)

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in 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.

Question Number	Answer	Mark
1	C	(1)

Question Number	Answer	Mark
2	A	(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	B	(1)

Question Number	Answer	Mark
7	D	(1)
Question Number	Answer	Mark
8	B	(1)

Question Number	Answer	Mark
9	A	(1)

Question Number	Answer	Mark
10	A	(1)

Question Number	Answer	Mark
11	D	(1)

Question Number	Answer	Mark
12	D	**(1)**

Question Number	Answer	Mark
13	B	**(1)**

Question Number	Answer	Mark
14	A	**(1)**
Question Number	Answer	Mark
15	A	**(1)**

Question Number	Answer	Mark
16	C	**(1)**

Question Number	Answer					Mark
17a		Input only	Output only	Input and Output	S	
	Touch screen			x		
	Mouse	X				
	CD-ROM					
	Keyboard	X				
	Speaker		X			
	Webcam	X				**(6)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17b	Any one of: • Graphic(s) tablet /pad • Stylus • Light pen	Mouse Touch screen (in 17a) Tablet	Accept sensible answers such as Wii-motes	**(1)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17c	Any **one** from: • Desk Top Publisher / Publishing • DTP • Word Processing / Word Processor • Publishing	Trade names by themselves e.g. Word, Publisher	Allow graphics package	**(1)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17di	Flash (memory)			**(1)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17dii	Two descriptions from: • (Pair camera and PC) using Bluetooth /WiFi (1) Photos copied to PC/synchronised / sent / shared (1) • Using Wifi – upload photos to online storage (1) Download to PC (1) • Email photos (1) and save in PC (1) • (Link camera and computer) using named cable / port (1) Copy to PC (1) • Copy onto USB drive (1) insert USB drive into PC and copy /move photos(1)	SD or memory card Transfer photographs without explanation	Named cables / ports include USB, HDMI, Ethernet, firewire, data	**(4)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17e	An explanation involving: A (small) picture / symbol / object / image / button(1) used to represent or open or run or contain **one of**: a task / a function / command / application / code / file / folder(1)		Accept any wording that conveys the correct meaning	**(2)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17f	Any **one** of • Sort / (re)arrange (1) the folders into alphabetical / date order (1) • Use search facility (1) by typing in (part of the folder name)(1)			**(2)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
17g	• Use meaningful filenames eg include the recipient or the purpose / content of letter(1) • Enable file preview / extra large icons(1)			**(1)**

Question Number	Answer		Do Not Accept	Additional Guidance	Mark
17h	Back ache	Any two from: • Ergonomic / adjustable furniture (1) • Adjust seat angle / height / Lumbar adjustment (1) • Foot / neck / back rests (1) • Correct posture in chair(1)	Take regular breaks Medical solutions		**(4)**

	RSI	• Any two from: • Wrist rests / gel pads (1) • Ergonomic keyboard / mouse(1) • Correct posture(1) • Hand / wrist / finger exercises			

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18a	Any **three** points from: • No need to leave home / travel to shops / save travel costs / time(1) • No queuing (1) • Online discounts / special offers (1) • Available 24/7 (1) • Know instantly if in stock (1) • Immediate confirmation (1) • Easy to compare prices with other (online) retailers (1) • Wider range of retailers available (1) • Wider range of goods available (1) • Cheaper as overhead savings passed on by retailer (1) • Ability to search for items (1)	Cheaper, quicker, easier without qualification		**(3)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18b	Any **three** points from: • Can try on clothing / try out sports equipment (1) • Can judge quality/appropriateness (1) • Goods available immediately (1) • Can pay with cash / can bargain (1) • May not be computer literate / have computer / access to internet (1) • Prefers face to face / going to shop (1) • Can get advice (1) • May not trust on-line transactions / fear of identity theft (1)	Cheaper, quicker, easier without qualification	Reverse arguments are acceptable	**(3)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18ci	Any **three** from: • Saving costs of buildings / shops (1) • Saving overhead costs e.g. heating / cash handling(1) • Saving in staffing costs / fewer staff (1) • Saving in stock (costs) / reduced losses (1) • Can concentrate on improving online business (1) • May be a reduction in training needs, as staff no longer need 'customer relationship' training. (1)	Wider market		**(3)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18cii	Any **two** from: • Will lose jobs (in shops) / made redundant (1) • May need / be offered a different job (within the company) / work at home /(1) • May need / be offered retraining (within the company) / acquire skills(1)		Any effect must be on current staff not on job creation for other people	**(2)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18d	Any **two** points from: • Don't need staff to enter data (1) • Makes customers responsible for / reduces data entry errors(1) • Data entry forms can make it more likely that valid data is entered (1)			**(2)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18ei	Any **two** from: • Don't need to re-enter data (personal details)/ fewer data entry errors (1) • Can take advantage of 'one click' ordering (1) • Can be sent offers/promotions (1)			**(2)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18eii	• Order number (1) Accept delivery /invoice / receipt number (1)	Tracking number		**(1)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18eiii	**One** mark for valid point and **one** mark for extension. Any from: • Can target advertising / offers (1) based on previous sales trends / patterns(1) • Can analyse data (1) to help planning / stock control / pricing(1) • Could sell data to third party(1) to get money(1)			**(2)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
18eiv	Any **three** points from: Data must be • fairly and lawfully processed (1) • fairly/legally collected (1) • used only for its intended purpose (1) • not misused (1) • be adequate / not excessive (1) • relevant (1) • kept securely (1) • kept for no longer than necessary (1) • not transferred outside EU / to countries without similar restrictions (1) • available for individuals to check (1)			**(3)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19a	Any **one** of: • Wide area network / WAN (1) • Virtual private network / VPN (1) • Extranet (1)			**(1)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19bi	An explanation including **two** of: • (Network) with private/restricted access (1) • used by members of a single organisation (1) • uses internet protocols (accept: local / private version of the internet) (1)			**(2)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19bii	Any **three** from: • Staff notice board / notices / news / memos / menus (1) • Newsletter / blog (1) • Official documentation / policies / reports • Standard forms (1) • Training (manuals) FAQ(1) • Job adverts (internal) (1) • Staff directories (1) • Internal communication (eg chat, email, file sharing, video conferencing, forums, bulletin board) (1) • Meeting schedule / calendar (1)		Accept other sensible facilities	**(3)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19ci	Any **three** from • Meetings can be at short notice (1) • No need to pay travelling / hotel costs (1) • People don't lose time travelling / are only away from desks during meeting time (1)	Cheaper, faster, easier without a reason	Accept other sensible answers	**(3)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19cii	Any **three** from • Technical problems may occur / have to be able to connect reliably to the internet (1) • Time lag/latency can cause difficulties (1) • Physical items can't readily be exchanged (1) • Time differences may be an issue (1) • Difficult to study body language / eye contact difficult(1) • Team building / social interaction is more difficult(1)	Exchange of documents for mp3	Allow signatures for mp3	**(3)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19di	Any **three** from • ISP (1) • Router / Modem (1) • Web browser (1) • Wireless access point (1)			**(3)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
19dii	Any **two** from: • Extra step in (login) process (1) • Need to know memorable information as well as the password(1) • Only selected information (1) • Makes it harder to guess / see (1) • Reduces possibility of automated attacks (1)			**(2)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
20ai	Any **three** from • May access inappropriate sites (1) • May illegally download (music / videos) (1) • May download malware (1) • May 'meet' unsavoury characters (in chat rooms) / be subject to cyber bullying (1) • May pass on personal information (1) • May use Mr Josef's credit card without permission(1) • May become addicted (to games sites / social networking) / may neglect school work or similar (1)			**(3)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
20aii	Any **one** from • Put the computer in the family area / not in private area e.g. office (1) • Supervise Alun when he's using the computer (1) • Talk 'to Alun' about the dangers(1) • Turn off / remove the link to the internet(1)	Anything related to digital surveillance or restricting time		**(1)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
20aiii	Any **two** from • Install (parental) control software / tracking or monitoring software / check history (1) • Restrict / block access to sites via functionality of web browser / filter software / ISP / blacklist(1) • Install anti-malware / firewall (1) • Password protect the administrative account (1)	Trade names such as Net Nanny		**(2)**

Question Number	Indicative content
20b	Indicative content of a discussion on the positive and negative effects of computers and other digital devices on people's lifestyles
	Positive Impact
	• Technology is improving many aspects of everyday life e.g. communication – must have skills to benefit
	• Communication improves contact with family and friends
	• Can make friends with people from different backgrounds using chat rooms / facebook etc
	• Technology use linked to improvement in reading skills / hand – eye coordination
	• Technology offers wider educational opportunities
	• Availability of valuable sources of information online e.g. health information / fitness information / exercise regimes / government websites
	• Can work from home / changes in working patterns
	Negative Impact
	• Time spent on computer rather than socialising / leads to lack of social skills
	• Time spent on computer rather than exercising / could lead to health issues
	• Time spent on entertainment / games rather than doing homework / work
	• Health problems arising from using computers e.g. back problems / RSI
	• May lose sleep as technology 'takes over' life / addictive / may lead to problems at work / school

Question Number		Indicative Content
20b		
Level	Mark	Descriptor
	0	No rewardable material.
1	**1-2**	The candidate will have produced brief responses with little or no discussion. They will have identified more than one effect but those identified may all be positive or all negative.
2	**3-4**	The response shows some focus and organisation. The response may be in the form of a list if several effects are identified and both positive and negative effects are included. The discussion may be one sided, however there will be several points considered.
3	**5-6**	The response shows good focus and organisation. Several points will be considered, both positive and negative. The discussion will be balanced and the candidate will show a good understanding.

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Question Number	Answer	Do Not Accept	Additional Guidance	Mark
21a	• Internet Protocol / IP (address) • MAC address		Allow • Computer IP • Device IP	**(1)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
21b	An explanation including: Data (transmission) is encrypted (1) Key needed to decrypt (the data) (1)		Accept scramble or encode in place of encrypt	**(2)**

Question Number	Answer	Do Not Accept	Additional Guidance	Mark
21c	Any **three** from • Wired (connections) usually faster (1) • Wired (connections) less affected by distance (from the hub) (1) • Wired (connections) not affected by walls etc (1) • Wired (connections) are less affected by the number of users (1) • Wired (connections) don't suffer from interference (from other devices) / more stable (1) • Wired (connections) are (potentially) more secure (1)		Accept reverse answers stating disadvantages of wireless connections	**(3)**

Question Number	Indicative content
21d	Indicative content of a description of the concerns about the security of data when using a network and steps that can be taken to reduce risks. **Concerns** • Unauthorised access to data e.g. hackers • Accidental loss of data • Malicious damage • Virus • Physical problems e.g. natural disaster • Hardware malfunction **Methods to reduce risks** • Set up user names and passwords • Set up access rights • Firewall • Encryption • Centralised backup • Backup to external devices / stored off-site / fireproof safe • Anti-virus software • Anti-malware software

Question Number	Indicative Content	
21d		
Level	Mark	Descriptor
	0	No rewardable material.
1	**1-2**	The candidate will have mentioned one or two risks but probably not given any solutions or have provided any brief ones.
2	**3-4**	The response shows some focus and organisation. The candidate will have identified a risk or risks and described several ways of overcoming them. They may have described several risks or one in greater depth.
3	**5-6**	The response shows good focus and organisation. The candidate will have identified several risks. They will have described solutions that relate directly to the concerns. The description will relate to the context.