Mark Scheme (Results)

Summer 2025

Pearson Edexcel International GCSE
In Information and Communication
Technology (ICT) (4IT1)
Paper 01R: TimeZone

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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
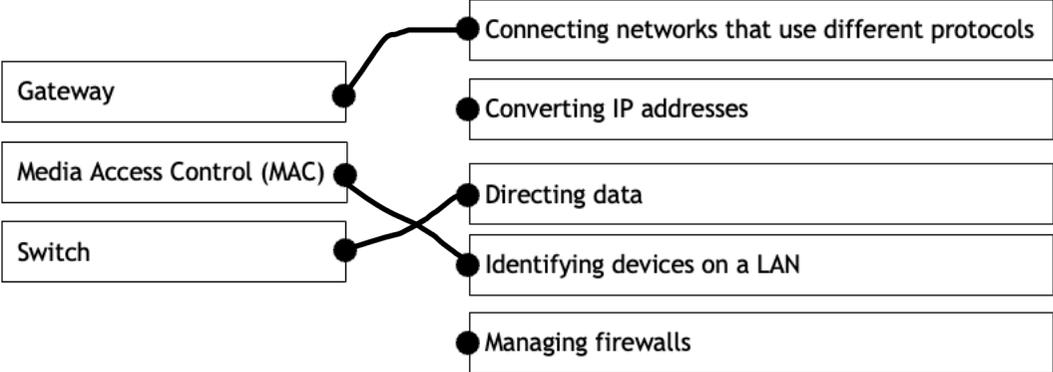 *iii) organise information clearly and coherently, using specialist vocabulary when appropriate.*

Question Number	Answer	Mark
1a	Any one from: • HDD • SDD • Secondary storage Do not accept: RAM	**(1)**

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

Question Number	Answer	Mark
1c	A	**(1)**

Question Number	Answer	Mark
1d	An explanation such as: • It does not allow connection to the Internet (1) because it does not use the required protocols (1) • Data transfer requirements are high (1) but Bluetooth has limited bandwidth (1)	**(2)**

Question Number	Answer	Mark
1e	Any two from: • WAN • LAN • PAN	**(2)**

Question Number	Answer	Mark
1f	Award **one** mark for each correct line. Do not award answers with more than one line to or from any of the boxes.	**(3)**

Question Number	Answer	Mark
1gi	A description such as: To direct data (1) using the quickest path (1) Connects two networks (1) of the same type (1) Forwards packets (1) using IP addresses (1)	**(2)**

Question Number	Answer	Mark
1gii	Client	**(1)**

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

Question Number	Answer	Mark
1giv	A linked description that includes two from: • Connect devices • via Bluetooth/Wi-Fi • Sharing the host device's 3G/4G/internet connection	**(2)**

Question Number	Answer	Mark
1gv	A linked description to include two from: The SIM/IMEI number (1) is transmitted / checked/identified against a database (1) Do not accept 'phone number' for mark point 1	**(2)**

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

Question Number	Answer	Mark

1hi	Any one from: • Reducing the file size • Representing information /organising data more efficiently • Removing unnecessary data	**(1)**

Question Number	Answer	Mark
1hii	An explanation such as: It is a (legal) protection of their work (1) and ensures they receive recognition/compensation/money for their efforts (1) It allows Vasu to control (1) how the work is used/distributed/modified (1)	**(2)**

Question Number	Answer	Mark
2ai	D	**(1)**

Question Number	Answer	Mark
2aii	Backup	**(1)**

Question Number	Answer	Mark
2aiii	A	**(1)**

Question Number	Answer	Mark
2aiv	Any one from: • Fragile • Lower capacity • Slower access times	**(1)**

Question Number	Answer	Mark
2av	• All file blocks together • All free space together	**(2)**

Question Number	Answer	Mark
2b	Merging technologies, or devices into one system	**(1)**

Question Number	Answer	Mark
2ci	A description such as: To manage and control (1) the hardware components of a computer system (1) To provide an interface (1) between the user and the machine (1)	**(2)**

Question Number	Answer	Mark
2cii	Any two from: • Relies on community support rather than professional customer service. • Compatibility issues (with proprietary systems) • Vulnerabilities can be discovered and exploited • May lack advanced features	**(2)**

Question Number	Answer	Mark
2d	C	**(1)**

Question Number	Answer	Mark
2ei	A password to include: • Complexity (e.g. upper case and lower case and special characters) • Length >= 8 • Unpredictability (not a single recognisable word / unconnected words) / not related to personal data (e.g. example of a name).	**(3)**

Question Number	Answer	Mark
2eii	A description such as: Read-only access (1) means users cannot alter the data (1)	**(2)**

Question Number	Answer	Mark
2eiii	An explanation such as: Passwords are easier to manage/ revoke (1) because passwords can be updated/changed / biometrics are fixed / cannot be changed (1)	**(2)**

Question Number	Answer	Mark
2fi	Any one from: • ROM • Cache	**(1)**

Question Number	Answer	Mark
2fii	It is volatile / loses its stored data when the power is turned off or interrupted	**(1)**

Question Number	Answer	Mark
2fiii	An explanation such as: • More applications can be open/running (1) at the same time (1) • Programs will open/run more quickly (1) because there is less need for virtual memory (1)	**(2)**

Question Number	Answer	Mark
2g	Any two from: • Process Management • File management • Device management • User interface • Security / access control • Managing network communication • Error handling	**(2)**

Question Number	Answer	Mark
2h	Any two from: • It will be able to open files quicker / process data faster (1) because it can carry out more instructions per second (1) Do not accept 'quicker' / 'faster' (without expansion) for first mark.	**(2)**

Question Number	Answer	Mark
3a	Any two from: • Speaker • Monitor • (etc!)	**(2)**

Question Number	Answer	Mark
3b	Two descriptions of negative impacts such as: • Increased cybersecurity risks (1) because more data has to be transferred using third party network infrastructure (1) • Weaker customer relationships (1) because of reduced of personal interaction (1) • Increased competition (1) because of people being able to compare prices more easily (1)	**(4)**

Question Number	Answer	Mark
3c	An explanation such as: Files can be accessed faster (1) because online storage relies on limited bandwidth (1)	**(2)**

Question Number	Answer	Mark
3d	An explanation such as: Install/run anti-malware (1) to check for /quarantine viruses (1) Check/verify (1) the attachment/sender (1)	**(2)**

Question Number	Answer	Mark
3e	Any two from: • Increased communication • Better access to education • Access to diverse perspectives • Access to more / niche communities • Access to work / employment	**(2)**

Question Number	Answer	Mark
3fi	Any two from: • Shared files/documents • Real-time / synchronous editing • Commenting features • Version history • Virtual meetings • Screen sharing • Polls	**(2)**

Question Number	Answer	Mark
3fii	Any two from: • Set the rules / consequences • Enhance safety	**(2)**

Question Number	Answer	Mark
4a	Any one from: • Log in • Edit • Search • Page history • Add page	**(1)**

Question Number	Answer	Mark
4b	A description such as: • Keeps users' choices (1) if they reload the page (1) • Store information about the user's selections (1) and present them with matched/similar (1)	**(2)**

Question Number	Answer	Mark
4c	An explanation such as: • Improved customer engagement and user experience (1) because website owners can gain valuable insights into user behaviour/preferences/feedback (1) • Improves safety (1) because malicious users can be identified (1)	**(2)**

Question Number	Answer	Mark
4d	An explanation such as: Vasu can focus on important creative decisions / saves time (1) because AI can automate routine tasks (1)	**(2)**

Question Number	Answer	Mark
4e	An explanation such as: Less secure (1) because there is no central control / administrator / it is difficult to enforce access controls, permissions (1) Less reliable (1) because individual devices must be available to share files (1).	**(2)**

Question Number	Indicative content
4f	+ Cost savings + Increased productivity + Access to global talent + Business continuity - Communication and Collaboration Challenges - Difficulty in Monitoring and Supervision - Technological and Infrastructure Issues - Inequality and Accessibility **Example response:** Home-based working has lots of benefits for employers, like giving workers more flexibility and balance between their job and personal life. This setup suits different lifestyles and commitments, which boosts how happy workers are and how likely they are to stick around. Plus, it saves money by cutting down on office space, bills, and stuff like that. Lots of people find they get more work done at home because there are fewer distractions, they spend less time commuting, and their workspace is comfy. Also, letting people work from home means employers can tap into a bigger pool of talent from all over the world, which brings in fresh ideas and skills. It also means that if something unexpected happens, like a crisis, work can still carry on smoothly. But there are challenges too, like it being harder to communicate and keep track of what people are doing when they're not in the same place. And there are technical problems to worry about, like internet issues and cyber threats. What's more, working from home can make people feel lonely, especially if they're used to being around others at work. Employers need to step up and find ways to support their workers' mental health and keep them feeling connected, like setting up virtual team-building activities. And it's important to make sure everyone has a fair chance to work from home, so there aren't any inequalities. So, while working from home has loads of good points, it's crucial to deal with the challenges properly. By understanding and fixing these problems, employers can make the most of remote working and have a team that's happy, strong, and inclusive.

Level	Mark	Descriptor (AO3 – Discuss)
	0	**No rewardable material.**
1	1-3	A limited number of points will be identified, which may only support one point of view. At least one point will have evidence to support it. The discussion will have few (if any) links to the scenario. There may be a conclusion but this is likely to be a simple statement. The response will lack clarity and organisation.
2	4-5	A range of points will be identified, which compare different points of view, though the discussion may be unbalanced. Some points will be supported by evidence. The comparisons will include links to the scenario but may include some generic points. A conclusion will be included, which will link with the comparison, though the link may be implicit. The response will show some focus but may not be well organised.
3	6-8	The discussion compares a range of different points of view. Most points will be supported by evidence. The majority of the discussion will link to the scenario. A conclusion will be given that clearly links to the comparisons made in the discussion. The response will show good focus and organisation.

Question Number	Answer	Mark
5a	Any two from: • Education disparities • Economic disadvantages • Social exclusion • Healthcare disparities • Reduced democracy • Global development disparities	**(2)**

Question Number	Answer	Mark
5b	An explanation such as: • Economic inequality (1) means less access to technology / slower internet connectivity / less access to digital skills (1) • Infrastructure disparities (1) such as mobile connectivity (1) • Social and cultural barriers (1) mean that marginalized communities face additional barriers to accessing and using technology (1) • Government policies / regulations (1) can either facilitate or hinder access to ICT infrastructure and services (1) • Age-related and generational experiences (1) affect attitudes towards technology (1)	**(2)**

Question Number	Answer	Mark
5c	A description such as: • Toxic substances (1) can leak/contaminate into soil/groundwater/wildlife (1) • Air pollution (1) caused by burning e-waste (1) • Resources are depleted (1) because people buy new devices / throw away old devices (1)	**(2)**

Question Number	Answer	Mark
5d	An explanation that relates to the accuracy / bias of the information presented.	**(2)**

Question Number	Answer	Mark
5e	A description to include two (max) from: Indexing: • Web crawlers / spiders browse the World Wide Web (1) and the results are analysed - extracting keywords, titles, headings, and metadata (1) to show where these words appear and how they relate to each other (1) Or ranking: • keywords in the page's content (1) are ranked/matched (1) to metadata in the content (1)	**(2)**

Question Number	Indicative content
5f	- Legal framework (GDPR) - Data protection principles (lawfulness, fairness, and transparency; purpose limitation; data minimisation; accuracy; storage limitation; integrity and confidentiality (security); and accountability) - Lawful Basis for Processing (consent, contractual necessity, legal obligation, vital interests, public task, or legitimate interests) - Data Subject Rights: (security of personal data, including measures to prevent unauthorised access, accidental loss, destruction, or damage.) - International Data Transfers: (Restrictions on transferring personal data to countries without adequate data protection laws or safeguards. **Example response:** Organisations that store data about people have to follow strict rules set out in the law to keep that information safe and respect people's privacy. The GDPR, which is a law in the EU, and similar laws in other places, lay down these rules. First off, these organisations need a good reason, called a "lawful basis", to use people's personal data. This could be because the person said it was okay, because it's needed for a contract, or for other reasons that are fair and sensible. Then, there are some big rules they need to stick to. They have to be fair and honest about how they use the data, they can't keep it for longer than they need to, and they have to keep it safe from being lost, stolen, or seen by the wrong people. They also need to make sure the data they have is accurate and up-to-date. People also have rights when it comes to their data. They can ask to see what information is being kept about them, they can ask for mistakes to be fixed, and they can even ask for their data to be deleted in some cases. If there's a problem, like a data breach where information gets into the wrong hands, the organisation has to tell the authorities and the people affected. And if an organisation wants to send personal data outside of the EU to a place that doesn't have good data protection laws, they have to be very careful and make sure it's safe to do so. Not following these rules can lead to serious consequences, like huge fines. So, organisations have to take data protection seriously and make sure they're doing everything right to keep people's information safe and respect their privacy.

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