



Pearson
Edexcel

Examiners' Report
Principal Examiner Feedback

Summer 2023

Pearson Edexcel International GCSE
In Information and Communication Technology
(4IT1) Paper 01

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IGCSE ICT 4IT1-01

Introduction

The examination for this unit requires students to explore how current and emerging digital technologies impact on the lives of individuals, organisations and society. This is an untiered paper that has been specifically designed so that easier questions are more prevalent earlier in the paper, becoming progressively more difficult later on. This paper has been designed to be accessible, so that candidates of all ability ranges will find questions that are both challenging and interesting throughout. Candidates will find that 'command words' are used consistently in the paper to indicate the type of response expected. It is hoped that candidates will demonstrate the knowledge, understanding and skills required to be confident users of ICT.

Successful candidates often provided more detailed responses, providing more than just simple statements, including examples and reasons where expansions or explanations were required.

In the extended questions, candidates must demonstrate a better understanding of the requirement to 'discuss'. Candidates should develop their use of subject-specific and technical language, and avoid giving generic responses, responding in the context of the question.

1ai

Some students were unable to identify that tethering was sharing of a mobile/cell network connection with many vague answers relating to gaining access without reference to use of the smartphone. Some were unable to achieve both marks as responses didn't refer to mobile broadband, and many responses simply focused on the sharing of the Internet, which was too colloquial and did not show enough technical understanding.

1bi

Generally, most students referred to a small geographical area. Marks were awarded mostly for 'single site', 'small geographical area', 'WAN is collection of LANs'. There were few responses relating to use of a gateway or third party-infrastructure.

1bii

Most students failed to gain the expansion point of the 'network' being connected to. However, many students were able to earn the mark for referencing 'wireless connection' or connecting without wires.

1c

The majority of students focused on benefits for Camille and not her employer. Students seemed to focus on 'transport costs' and 'working flexibility' for Camille. Very few students mentioned the ability to recruit workers from a wider area.

1d

Bluetooth and WiFi were popular answers. Infrared and NFC were rarely seen responses. Some students (perhaps with knowledge of less developed area).

1eii

Many students mentioned latency being the speed of data transmission between devices. This was accepted, though not an accurate response (i.e. the delay).

1f

Most responses made reference to geographical restrictions, changing of locations and changing / masking of IP address. This was a question when the full range of answers available in the mark scheme were awarded. Some described the uses (i.e. masking location/IP address) rather than the function (e.g. encrypted access using public infrastructure).

1g

Many students were able to correctly name two types of malware, though the descriptions were often rather vague. Common incorrect responses included phishing and pharming.

1h

Very few students answered both parts of the question; either focusing on 'blocking' or keeping children safe from 'inappropriate content'. Many students who provided wrong answers seemed to confuse a filter with a firewall. Some students confused the use of a filter in a network with a filter in a search. Correct responses were often vague about how the filter would work but gained credit for indicating that the filter would protect Camille's family from inappropriate sites.

2ai

Most students were able to give a condition and output. However, there were many who did not understand the distance sensor and thought it was about measuring how far the car travelled.

2b

Most students were correctly able to state the correct answer. Incorrect responses often miscounted the number of zeroes in their response.

2c

Most incorrect answers focused on the use of 'IP address' tracking, with many students simply making reference to a 'sensor', however, this was deemed insufficient for a mark.

2dii

Many students obtained marks in this question simply by grouping the four files, however, very few students grouped them together to the left-hand side to pick up both marks. Quite a few added a 3rd block to files A, B and D to match up with file C.

2diii

Incorrect responses included HDD and CD/DVD and tape media. Occasionally 'USB', without the reference to 'drive', was seen.

2dv

Many students made reference to faster load speeds, many students did not use the term 'durability' in their answers, however, this mark was often awarded as students implied it in their answer.

2fii

Few students made reference to the increase in cost. The majority of students focused their answers on the demand for extra processing and the implication this would have on energy demands.

3a

Many students picked up both marks in the one response for making reference to 'like' and 'comment'.

3c

Many students did not relate transactional data to cookies. Therefore, they did not fully respond to how these would assist users by presenting similar images / websites.

3di

When a mark was awarded, it was usually related to shared access / use of any device to access, but it was rare to have any reference to processing or editing. Almost all wrong answers referred to the benefits of using hosted storage rather than local storage and / or the availability on hosted software of additional features not available on local software.

3fi

Few students related their responses to an increase of signal strength, and many answers were given regarding latency, interference, and obstacles. Many answers were a rewording of the question.

3fii

Almost all students associated faster data transfer with reduced file size and achieved full marks for this question.

3g

Most students gained at least one mark in this question. Many identified the website being easier to use and were mostly able to develop the answer with a linked response, mostly to an accessibility need.

3hi

Most students made reference to HTTPS. Quite a few students gave 'Encryption' as an answer, with few making reference to WEP / WPA / SSL.

3hii

Most students made referencing to scramble / jumble / mix up the data.

3hiii

Most students achieved at least 1 mark, most commonly for reference to confirmation of identity or for reference to possession of phone / sole access to phone (thereby denying unauthorised use).

4a

Many students wrote about using recycled material to build the servers. No responses were seen that made reference to 'Autoplay of videos', but the other responses in mark scheme were seen regularly.

4bi

Some students mentioned input devices rather than output devices. An incorrect output device frequently mentioned was a printer.

4c

Many student responses were mistakenly related to inappropriate comments. Those who were awarded marks mostly identified distractions or unreliable information. Most students did not gain both marks.

4di

Many students focussed on a specific location and timeframe (e.g. London and today), with some even suggesting checking the weather every hour or using terms such as 'being more specific' or 'narrow down' rather than suggesting global or worldwide temperatures over a longer period of time.

Some focussed on the structure of the criteria (mentioning the quotation marks and the plus symbol) rather than the relevance of the criteria to the research being done.

4dii

Most students who successfully linked two points, mostly described braille keyboards and a sight disability.

4e

Many students identified a feature, mostly chat, but failed to give a development from the feature. Many repeated the question as developing social skills.

4f

Higher scoring responses included reference to balance, use of other / multiple sources, bias, accuracy, established / official sources vs user-produced sources, publications (including newspapers) vs online including respectable online content and date of publication. However, there were some fairly superficial responses that focussed on only one of these factors. There was little mention of the issue of expert versus lay opinion and no mention seen of commenting about underrepresentation of international or multicultural aspects of reliability.

5a

There was confusion between input and output devices and responses frequently mentioned speakers and monitors. Other incorrect responses such as steering wheels and joysticks were repeats of the question, where controllers were mentioned.

5b

Most students were able to correctly identify compression and backup as being types of utility software. Defragmentation, indicated in the question, was a frequent non-creditworthy response.

5c

Although a range of correct answers were seen, servers, gateways and switches were examples of incorrect responses.

5d

Where 1 mark was awarded, it was usually for the device ID. A large number of incorrect responses made reference to the identification of the host in part A.

5e

Many responses to this question which were related to keeping devices secure rather than the individual. Where some students identified keeping personal information discreet, many did not explain how this would keep the individual safe.

5f

Many students mentioned the possibility of distractions but often did not then relate this to the working practices. Similarly, loss of face-to-face interactions was not always linked to a loss of understanding between team members. Many students referred to technical issues regarding online activity.

5g

Students were far more likely to provide a definition of plagiarism than discuss how ICT makes it easier to plagiarise. There was also a great deal written about large language models that said very little at all about how ICT makes it easier to plagiarise.

Students understood plagiarism could result in loss of income / loss of status / loss of motivation for the original creator. Many students also widened discussion to non-written media, e.g. song lyrics.

Paper Summary

Based on their performance on this paper, students are offered the following advice:

- Expand and explain answers using examples and reasons, especially where more than a simple statement or list is requested
- Where a context or scenario is provided, respond with the context of the question in mind
- Read and interpret the question prompt to focus on the specific requirements and provide more relevant responses that address the critical aspects of the question.
- When required to give one other example/reason, ensure the response is discrete from the given example/reason
- Allocate time to plan responses to the extended questions

