

CAMBRIDGE TECHNICALS LEVEL 3 (2016)

Examiners' report

IT

05838–05842, 05877

Unit 1 January 2024 series

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Introduction

Our examiners' reports are produced to offer constructive feedback on candidates' performance in the examinations. They provide useful guidance for future candidates.

The reports will include a general commentary on candidates' performance, identify technical aspects examined in the questions and highlight good performance and where performance could be improved. The reports will also explain aspects which caused difficulty and why the difficulties arose, whether through a lack of knowledge, poor examination technique, or any other identifiable and explainable reason.

Where overall performance on a question/question part was considered good, with no particular areas to highlight, these questions have not been included in the report.

A full copy of the question paper and the mark scheme can be downloaded from [Teach Cambridge](#).

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Unit 1 series overview

Overall candidates attempted the majority of questions. Candidates performed very consistently in Section A. This has again been another series where there has been an increase in the number of candidates identifying the correct area from the specification document. This was notable in Questions 19(a) and 19(b). This year has seen a drop in higher marks for the level of response questions (20(a) and 23). Many candidates continue to lose marks on the technical questions where an in depth knowledge is required.

Very few candidates were seen to achieve full marks for Part A, but many candidates achieved half marks or above. Questions 7,8, and 9 were most commonly answered correctly.

The main areas of difficulty in this paper were Questions 1, 2, 6 and 15.

Candidates who did well on this paper generally:	Candidates who did less well on this paper generally:
<ul style="list-style-type: none"> • achieved 10+ marks in Section A • made sure to identify first in an 'identify and describe' style question • were careful to fully describe points in Questions 20(a) and 23. 	<ul style="list-style-type: none"> • did not identify first in an 'identify and describe' style question • used generic terminology rather than the technical terminology, as given in the specification.

Section A overview

Very few candidates were seen to achieve full marks for Part A, but many candidates achieved half marks or above. Questions 7,8, and 9 were most commonly answered correctly.

Section B overview

Section B in this series saw most of the questions attempted by the candidates. As seen in previous series, there is still a tendency to use generic terminology rather than the technical terminology as set out in the specification, which candidates need to use in order to gain marks. This paper saw candidates struggle with identifying characteristics from a wide range of unit topics. Four questions from Section B required candidates to identify and explain characteristics/attributes. In the level of response questions, 20(a) and 23, there were some well written responses, but most remained in mark band two as they did not move from description into discussion.

Question 16

Friends On-Line Social (FOLS) is a social network created to link friends together by sharing memories. Memories can be created using images and documents that friends create when they take part in events together. The images and documents are attached to a calendar shown on the FOLS app. Friends can tag and post comments on the calendar.

16 Friends On-Line Social (FOLS) can be accessed on a range of devices.

Identify and describe **two** types of communication hardware that can be used to **connect** devices at home or at events.

1

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2

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[4]

In the main candidates were able to achieve some marks for identification in this question. Candidates that did well were able to describe the function of the device.

Question 17

17 FOLS will use **cloud storage** for their users to store their images and documents.

Identify and describe **two** characteristics of **cloud storage** that makes it a suitable form of storage for FOLS to use.

1

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2

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[4]

Generally this question was not well answered. Candidates struggled with identifying a characteristic of cloud storage. Candidates often gained 2 marks for 'accessed anywhere with the internet'.

Question 18 (a)

18 The amount of storage space required to store the images and documents is calculated using the **metric measurement** system.

(a) Explain what a **bit** and a **nibble** mean.

Bit:
.....
.....
.....

Nibble:
.....
.....
.....

[4]

Candidates often wrote long answers for this question attempting to explain. Candidates who seemed to do well wrote short answers that defined both elements.

Question 18 (b)

(b) One stored image takes up 3488 KB of space.

Convert 3488 KB into megabytes (MB).

You **must** show your workings.

megabytes (MB)..... **[2]**

Many candidates answered this question correctly. Common errors were to divide by 10, 100 or 1024.

Question 19 (a)

19 FOLS employ programmers who work remotely.

(a) Identify and describe **three personal attributes** that a programmer needs to demonstrate to carry out their job role.

1

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2

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3

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[6]

Where candidates did well in this question it was clear that they had learned the technical vocabulary as provided in the specification. Where candidates did very well, they added descriptions that did not repeat the identifier – for example Teamwork – to be able to work in a team.

Question 19 (b)

(b) Identify **two** ways that the FOLS programmers can demonstrate that they are **ready** for **work**.

1

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2

.....

[2]

Candidates that answered this section well used technical terminology directly from the specification. Personal Grooming and Can do attitude were common answers.

Question 19 (c)

(c) The FOLS programmers communicate with each other using a private **social network**.

Explain **one** advantage of using a **social network** for this purpose.

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..... [2]

This question was not answered very successfully. Many candidates would refer to a quick/fast method of communication.

Question 20 (a)

20 FOLS utilise **client virtualisation** to allow the programmers to connect remotely.

(a) Discuss the benefits and limitations to the FOLS programmers of using **client virtualisation** to connect remotely.

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..... **[10]**

Candidates who did well on this question in the main described the benefit of users not requiring the latest equipment to work remotely and the limitation of over reliance on internet connectivity. Candidates limited their marks by not developing their answers fully, describing only what the benefit or limitation was, rather than directly linking their impact in detail to the programmers specified in the question.

A proportion of candidates also described the benefits to FOLS, the business, rather than to the programmer's themselves as required in the question. Hence, while an understanding of the benefits or limitations could gain some credit, it was limited due to the lack of application to the context of the question.

Question 20 (b)

(b) Identify and explain **one** characteristic of using an **ADSL** connection to work remotely.

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..... **[3]**

In general, candidates struggled to identify a characteristic of using an ADSL connection.

Question 20 (c)

(c) Identify **one** characteristic of using **cellular connections**.

Explain how this could affect the **use** of the new social network by the FOLS users.

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..... [3]

In the main, candidates did not attempt to identify a characteristic of cellular connection before then explaining how it could affect the use of the new social network from an end user context.

Question 21 (b)

(b) Explain how **overwriting** data can be used by FOLS when disposing of computer equipment.

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..... [2]

Candidates seem to struggle with wording in answering this question. Candidates alluding to deletion or wiping were awarded zero marks. Many candidates used the term 'overwriting' from the question in their answer, which gained zero marks.

Question 22

22 FOLS could use the Transmission Control Protocol (**TCP**) or User Data Protocol (**UDP**) when users are connecting to the social network.

Compare the suitability of the features of **TCP** and **UDP** for connecting to the social network.

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..... [4]

Many candidates were awarded marks in this question for stating that UDP is a faster protocol than TCP. Strong candidates often had error checking in their answer.

Question 23

23 Users of the FOLS social network upload their images and documents to a cloud storage location.

Discuss the **digital security methods** that should be implemented to protect the images and documents on the cloud storage.

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..... **[10]**

Candidates generally answered this question well by describing appropriate security methods, including more up to date methods for the context. However, marks tended to be lost for referring to security methods not relevant to the context e.g. RFID, cameras etc or not developing their answers fully. Candidates tended to describe appropriate digital security methods but did not link them specifically to the context, i.e. how they would specifically protect the images and documents in the cloud. Candidates should apply their knowledge and understanding clearly to the context for the question to gain the higher marks.

Answering 'discuss' questions

Encouraging candidates to answer 'discuss' questions with 'because' will encourage them to include relevant points. To expand the point add an 'and'. For example:

Firewalls would be a good digital security method **because** they can block unwanted network traffic **and** this can stop unauthorised access to the images and documents in cloud storage.

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