OCR
Oxford Cambridge and RSA

CAMBRIDGE TECHNICALS LEVEL 2 (2016)

Examiners' report

IT

05882, 05883, 05884

Unit 2 Summer 2024 series

Contents

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 OCR.

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Unit 2 series overview

This unit is mandatory for the certificate and for the IT Practitioner and Digital Software pathways for the diploma.

The unit focuses on:

- aspects of cyber security
- threats and vulnerabilities that result in cyber security attacks
- how impacts from cyber security attacks can be minimised.

The questions in the paper are preceded by a scenario that involves an aspect of cyber security. The questions are based around this scenario. The paper may contain different scenarios for different questions.

Candidates who did well on this paper generally:	Candidates who did less well on this paper generally:
- used technical terms - related their responses to the scenario in the question - used the keywords in the question to give appropriate depth to their responses.	- missed questions out - gave learnt responses from previous mark schemes that were not applicable - gave responses using identified keywords from other questions in the paper - gave responses that included answers from the question that they were told not to use - used technical terms incorrectly.

Question 1 (a)

(a) Two of the purposes of cyber security are:

- to protect data and information
- to keep data and information confidential.

Identify **two other** purposes of cyber security.

[2]

1

2

This question required a learnt response from the specification. A few candidates gave to protect data even though it was given in the question. Many candidates were able to identify one other purposes and achieved at least 1 mark.

Question 1 (b)

(b) Customer records are stored by a business.

Identify the type of target for a cyber security attack that includes the records.

[1]

Types of targets are listed in the specification and required a learnt response from the candidate.

Question 1 (c)

(c) One type of attacker is a scammer.

Identify **two other** types of attacker.

[2]

1

2

Types of attackers are listed in the specification and required a learnt response from the candidate. Most candidates identified at least one other type of attacker, the most popular being a hacker, and achieved the mark.

Question 2 (a)

A driving instructor keeps records of his clients on a laptop. The client records are stored in a database. The driving instructor keeps the laptop in his car to make notes and answer emails. The driving instructor has been advised of the threat of unauthorised access to the laptop.

(a) Identify the legislation that relates to the storing of the client records.

[1]

The majority of candidates correctly identified the Data Protection Act and achieved the mark.

Question 2 (b)

(b) Describe what **unauthorised access** means.

[2]

Those candidates who gave an extended piece of writing were more likely to achieve the mark. As a description, full marks cannot be awarded for single word answers. Many candidates got across the idea that it was without permission but did not identify what the action was – whether it was accessing data or a device.

Question 2 (c)

(c) Identify and describe the type of attacker that usually carries out an unauthorised access attack.

[3]

Type of attacker

Description

Many candidates correctly identified hacker as the type of attacker but few were able to give a description worth 2 marks of what a hacker was that did not involve repeating the question. Rewording the stem of the question will not result in marks being given.

Question 2 (d)

(d) A device lock has been installed on the laptop.

Identify **one** characteristic of a device lock.

[1]

This question was very poorly answered by the majority of candidates. Answers relating to software locks were the most common incorrect responses seen.

Misconception

? Many candidates were unaware of physical device locks which can be used to block USB ports from being accessed or used to secure a portable computer to a desk or structure of a building. Marks were credited in either case.

Question 2 (e)

(e) Describe the purpose of a device lock.

[2]

Without an understanding of what a device lock is, many candidates did not understand its purpose to be able to answer this question.

Question 2 (f)

(f) One impact of unauthorised access to the laptop is the loss of intellectual property.

Identify and describe **two other** loss impacts of unauthorised access to the laptop.

[6]

Loss impact 1

Description

Loss impact 2

Description

This identification of the loss was generally well answered and gave candidates the opportunity to demonstrate their knowledge. A large number of responses focused on the loss of data and money. The descriptive marks were harder to achieve with few candidates going into the required depth to obtain both marks for each loss.

Those candidates who did exemplify, scored highly. For example the two losses identified were financial and reputation. Following on from the identification, a description of the loss was given obtaining full marks.

Question 3 (a)

A travel agency interacts with its customers using its website and by email. The travel agency has a network of four workstations and stores all of its customer data in the cloud.

(a) The network has been infected with malware.

Identify and describe **two** different types of malware.

[6]

Malware 1

Description

Malware 2

Description

The identification of two different types of malware was generally well answered. The description of the malware was less so with few candidates clear in their own minds of the distinction between them. Often the descriptions were very generic and based on that alone, it was not possible to identify the type the candidates were describing.

Question 3 (b)

(b) Identify the type of target for a cyber security attack that includes the network.

[1]

This question was poorly answered. Types of target is a learnt list from the specification and required a regurgitated response.

Question 3 (c)

(c) A Denial of Service (DoS) cyber security attack has happened on the website.

Describe what **Denial of Service (DoS) cyber security attack** means.

[3]

There are many components which go into a full response to this question and few candidates were sufficiently versed in the detail of a DoS attack to describe them all. A large number of candidates knew that it resulted in web pages being inaccessible or offline but few were able to give information on how or why this end result occurred. There was a lack of technical language being used which hindered the award of marks.

Question 3 (d)

(d) Identify **two** possible motivations of the attacker who carried out the Denial of Service (DoS) attack.

[2]

1

2

This was a learnt response and many candidates correctly identified two motivations.

Question 3 (e)

(e) Identify the Act that has been broken during the Denial of Service (DoS) attack.

[1]

This was the second question in the paper that asked candidates to identify an Act. A few candidates hedged their bets and gave the same response twice. Some combined the two acts into Data Misuse Act.

Question 3 (f)

(f) Explain why it is important that the travel agency increases its cyber security.

[3]

This question was generally well answered by candidates. As an explanation it required a considerable amount of writing to gain all the marks and it was encouraging to see that a large proportion of candidates had plenty to say. A number of answers focused on reputation and consequences of loss of data to the company.

Question 3 (g)

(g) The travel agency has a password protection policy for staff.

Discuss, using examples, why having a password protection policy is important.

[9]

The final question on this paper has consistently been an essay. Essays require a longer response from the candidate that is planned to take into account the context of the question and the keyword.

The majority of the answers to this question focused on a different question – why passwords were needed and neglected the word policy in the question. The question was not about the need for passwords, but the need for a password policy. This small, but important omission in their responses meant that many candidates did not score high marks on this question.

Those candidates who did identify that it was about the policy scored highly. For example where the candidate identified that it gives guidance and identified some of the contents of a policy and why it is needed. The structure of the answer – identification of a point and why that point is necessary in a password policy, followed by the implications if it is not followed is a good structure to use for questions requiring extended pieces of writing.

Assessment for learning

Essays require depth of response from the candidate rather than breadth. A few points are required but the candidate is required to show their understanding of the point and its application to the question.

Formatting their response can assist this, with each point being made being a separate paragraph; this can help focus the candidate on the point being made rather than moving onto a different one and reducing the depth of their argument and marks given.

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- learn about the key principles and processes of internal assessment and standardisation

- gain a deeper understanding of the marking criteria and how to apply them consistently and accurately

- see examples of student work with commentary and feedback from OCR moderators

- have the opportunity to practise marking and compare your judgements with those of OCR moderators

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Which courses are available?

There are **two types** of online course: an **introductory module** and **subject-specific** courses.

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- the roles and responsibilities of teachers, assessors, internal verifiers and moderators

- the principles and methods of standardisation

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- the common issues and challenges in internal assessment and how to avoid them.

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- the structure and content of the NEA units

- the assessment objectives and marking criteria for the NEA units

- examples of student work with commentary and feedback for the NEA units

- interactive marking practice and feedback for the NEA units.

We are also developing courses for some of the examined units, which will be available soon.

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