CAMBRIDGE TECHNICALS LEVEL 2 (2016)

Examiners' report

IT

05882, 05883, 05884

# Unit 2 January 2020 series

Version 1

Contents

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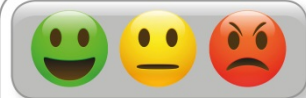
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Introduction

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 can be downloaded from OCR subject web page.

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Unit 2 series overview

A large proportion of the questions are knowledge based and use key words in the stem to guide the candidates towards the area of the specification being asked – types of cyber security incidents, targets of cyber security incidents and so on. To gain a good mark in this paper candidates need to make sure that they have a basic grasp of the basic theory knowledge.

Examination technique is very important; the keyword and number of marks gives an indication of the depth of response required. Questions that ask for identification as the first part must have an identification before any further marks can be awarded. Candidates need to get into the habit of making their first statement in these types of question the identification of the point.

The online system used to sit the examination has tools built into it that can assist the candidate. The highlighter for example can be used to mark key words and in particular example answers given in the question that cannot be used in the candidate response. This will hopefully prevent candidates wasting an answer that has been eliminated by the question itself.

Question 1 (a)

(a)   One type of cyber security incident is data manipulation.

Identify **two other** types of cyber security incidents.

1 [   ]

2 [   ]

[2]

This was done very well with most candidates identifying types of cyber security incidents.
Unfortunately, there is still a small proportion of candidates who are losing marks because they are not
reading the question carefully enough – data manipulation is given in the question and therefore cannot
be used as an answer.

Question 1 (b)

(b)   An organisation is one target for a cyber security attack.

Identify **two other** targets for a cyber security attack.

1 [   ]

2 [   ]

[2]

This was done very well with most candidates identifying targets for a cyber security incident.
Unfortunately, the same comment made for 1(a) applies here – organisations were given in the question
and therefore could not be given as an answer.

Question 1 (c)

(c)   One purpose of cyber security is to maintain the integrity of information and data.

Identify **one other** purpose of cyber security.

[1]

Another knowledge recall question that was answered very well with the majority of candidates able to identify a purpose of cyber security.

Question 2 (a) (i)

A cinema has a website with all the pages using the same colours and logo. The website allows customers to book and pay for tickets to see films. Customers must register and provide an email address to book tickets. The customers can select the film they want to see and the seats they want to sit in. Payments for the tickets are made using a credit or debit card.

Some customers have reported that when they navigate to the booking page of the website it does not use the same colours and logo as the homepage.

(a)   (i)   Identify the type of threat that may have occurred.

[1]

The most popular wrong answer was phishing. Phishing involves the receipt of an email as the initial step and although the end result of phishing and pharming are the same, the threat itself is different.

Question 2 (a) (ii)

(ii)   Explain how this threat may have accidentally occurred.

[3]

If candidates incorrectly identified the threat they were still able to obtain marks in the part of the question, and many did. Full marks was rare as responses lacked the detail; many identified a single action rather than give a full explanation.

Question 2 (a) (iii)

(iii)   Identify and describe **one other** type of threat that may occur.

[3]

There were many other threats that the candidate could have given and a large proportion gained the single mark for the identification. Their description of the threat lacked detail with many failing to gain any additional marks.

Question 2 (b)

(b)   Some customers have been receiving emails asking for money to be paid to keep using the online booking page.

Identify and describe the type of cyber attacker that is sending the emails.

[3]

Phisher was the most popular answer given here with the expansion of it being done via an email gaining the additional mark. Many failed to go into more detail. The question required three points and candidates need to be looking over their responses to ensure that there is enough detail to gain all available marks.

Question 2 (c)

(c)   Identify and describe **one other** possible target of a cyber security attack.

[3]

Many candidates gained the identification mark with data being a popular answer. The description of the target within the context of the cinema was poorly done with few able to gain any additional marks.

Question 2 (d)

(d)   Explain how encryption can be used to keep the credit and debit card details secure.

[3]

This was a question that required a reasonable level of technical understanding of how encryption works. This could have been a text book definition or given in context with specific reference to credit and debit card details. Few candidates achieved full marks. There was a distinct lack of technical terms or understanding of what encryption was.

Question 3 (a)

An electricity supplier holds customer records in a secure cloud storage area. The records hold personal, contact and bank details for each customer. The records also include electricity bill information and payment history.

Each customer has a unique user name and password for access to the secure cloud area. Customers can only access their own customer record. The customer record is used by customers for entering an electricity meter reading and for paying the electricity bill.

(a)   Identify **two** reasons why it is important that the electricity supplier uses cyber security for the cloud storage area.

1

2

[2]

This was done very well with many candidates achieving both marks.

Question 3 (b)

(b) The electricity supplier takes secure backups of data each day.

Describe how the secure backups of customer records could be used by the electricity supplier after a cyber security attack.

[3]

A large proportion of the responses given focused on why the backup was required rather than the focus of the question which was how they would be used. As with previous questions, there was little contextualisation seen and many candidates did not write enough points to gain the marks. Many gave the same answer worded in slightly different ways.

Question 3 (c)

(c) The electricity supplier uses logical protection measures to protect the customer records. It uses user names and passwords as well as secure backups of data and encryption.

Identify and describe **two other** logical protection measures that could be used to protect the customer records.

1

2

[6]

It is important that candidates are aware of the difference between logical and physical methods of protection. This question was also another where candidates did not read the whole question and gave passwords, usernames, backup and encryption amongst their answers.

Candidates that did identify correct logical protection measures did not give enough detail about the measure the gain full marks. Examples and contextualisation are a useful tool the candidate can utilise to assist them in their descriptions and will, by their nature, allow the candidate to write more and give additional details which increase their chances of obtained full marks.

Question 3 (d)

(d) A cyber attacker has placed a 'worm' on the cloud storage area.

Describe what is meant by a worm.

[2]

The definition of a work is very specific and this question was essentially asking for knowledge recall. Many candidates were not aware of the definition of a worm and scored poorly on this question.

Question 3 (e)

(e) Identify **two** motivations of the cyber attacker who infected the secure cloud storage area with the worm.

1

2

[2]

This was answered very well with most candidates achieving both marks.

Question 3 (f)

(f) A cyber security attack has taken place on the cloud storage area and customer records have been accessed.

Discuss how the financial disruption caused by the cyber security attack could affect the electricity supplier and its customers.

[9]

The essay is marked using levels of response. There are three levels – L1 required a basic identification of the disruption. L2 required more detail including explanation – typically for either the supplier or the customer and L3 required a detailed level of understanding of how the disruption applied to both parties.

It was pleasing to see candidates scoring higher marks in the essay than previous sessions. Many candidates were able to give sensible suggestions as to the impact of the disruption. The key to this essay was the coverage of both the supplier and the customers – this was required to move into the top level band of marking. The depth and level of explanation is important – merely mentioning a disruption is not sufficient and candidates should be looking to explain how the disruption identified impacts the individual or supplier.

The essay is about depth of response, not breadth – a few points made in detail will score higher marks than lots of superficial points.

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