

CAMBRIDGE TECHNICALS LEVEL 3 (2016)

Examiners' report

IT

05838–05842, 05877

Unit 2 January 2021 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 OCR.

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Unit 2 series overview

It was pleasing to note that the overall performance of the candidates continues to improve. However, it was also noted that many candidates still demonstrated knowledge gaps in relation to the unit content. Centres should make sure that candidates are familiar with all areas of the unit content before being entered for the external examination.


The correlation between content, context and command word still appeared to be limited. Candidates should be aware of the differing command words, e.g. identify, describe, explain, discuss, and the demands of each of these. Candidates should also be familiar with the concept that questions may have a specific focus. It is this focus which should be considered by candidates when composing their answers to questions.

In this unit, a pre-release case study is issued, this provides the context for Section A of the external examination. A limited number of candidates appeared to be unfamiliar with the context of the case study, for this external examination this was PhWSSE World sports event tour. This apparent lack of familiarity limited candidate's accessibility to many of the questions in Section A of the external examination where the questions are directly linked to this case study.

The case study also includes some research prompts for candidates. These prompts should not be ignored as the knowledge gained through completing the research will enhance accessibility to the questions in Section A.

Section B of the external examination does not require candidates to link their answers to the case study. It was, however, noted that there was evidence of knowledge gaps from the candidates' answers in this section.

There are many resources available which can be used during the teaching of this unit. Centres are encouraged to access the resources available from the OCR website that relate to the interpretation of the case study and exemplification / analysis of candidate answers from previous sessions.

	OCR support	Further guidance relating to the case study, research bullets and how these relate to the questions in Section A can be found at Past papers and mark schemes>Jan 2021 QPs">https://interchange.ocr.org.uk/ Resources and materials>Past papers and mark schemes>Jan 2021 QPs
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<i>Candidates who did well on this paper generally did the following:</i>	<i>Candidates who did less well on this paper generally did the following:</i>
<ul style="list-style-type: none"> • Applied their answers in Section A to the pre-release context • Answered questions in Section B in the context of the context of crime prevention • Understood the question command words and the demands of these 	<ul style="list-style-type: none"> • Provided limited application of the answers in Section A to the pre-release case study • Provided examples which did not apply to the context in Section B

Section A overview

This section of the external examination was directly linked to the case study, PhWSSE World sports event tour.

Question 1 was directly linked to bullet point 2 of the research points.

Question 2 was directly linked to bullet point 4 of the research points.

Question 3 was directly linked to bullet points 1 and 5 of the research points.

Question 4 was directly linked to bullet point 3 of the research points.

Question 5 was directly linked to bullet points 1 and 2 of the research points.

Question 1 (a)

This section relates to the case study on PhWSSE World sports event tour.

1 PhWSSE organise world sports tour events.

(a) Identify the category of information holders that PhWSSE would be included in.

..... [1]

This question required candidates to identify the category of information holders that PhWSSE would be included in. Many candidates provided answers that referred to the business / organisation category.

Question 2 (a)

2 The air freight distribution company can access the itinerary created by PhWSSE.

(a) Identify and describe the World Wide Web (www) technology which is used by the distribution company to access the itinerary.

Technology

Description.....

.....

.....

.....

.....

[4]

Many candidates were able to provide an acceptable answer for the technology – Extranet. To be considered for the marks allocated for the description, the mark for the technology had to have been given.

While candidates were able to identify the technology as an extranet, the descriptions provided did, in some cases, demonstrated a knowledge gap. Acceptable answers included the fact that an extranet is a website providing restricted access to authorised users to be able to access the itinerary.

Some candidates provided answers that related to a website but were unable to expand their answer to fully describe an extranet, so limiting accessibility to the allocated marks.

Question 2 (b)

(b) Identify **one** characteristic of this technology.

..... [1]

Where candidates accessed the allocated marks for Q2(a), they were generally able to access the mark for identifying a characteristic of an extranet. Acceptable answers included the characteristics of private or secure.

Question 3 (a) (i)

3 The tracking information shows the location of each case in real time.

(a) (i) Identify the information style that is applied to the tracking number.

..... [1]

Most candidates were able to identify a correct information style of text or string. An excerpt from previous event tracking information was provided in the pre-release material where a tracking number was shown.

Question 3 (a) (ii)

(ii) Explain why this information style has been used.

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

An explanation of why the provided information style has been used was required to answer this question. Where candidates had a good level of understanding of the pre-release material, they were able to access all allocated marks. The example provided in the pre-release material included letters, numbers and a space. Where candidate identified these attributes, they were able to access all allocated marks.

Question 3 (b)

(b) It is important that the tracking information demonstrates the characteristic of reliable. Explain why the tracking information needs to be reliable.

.....
.....
..... [4]

The pre-release material provides details of how PhWSSE use the tracking number and how it provides end-to-end visibility. During the work completed in response to the research bullets, candidates should have researched the differing characteristics, bullet point 5, reliability being one of these characteristics. Those candidates who had acquired a good understanding of the pre-release material were able to provide acceptable answers which were applied to PhWSSE.

Acceptable answers included the fact that PhWSSE needed to know the location of the equipment at any given time which provided end-to-end visibility.

Question 3 (c)

- (c) Identify **one** other characteristic of information that needs to be demonstrated by the tracking information. Explain why this is important.

Characteristic.....

Explanation.....

.....

.....

.....

[3]

This part of the question required candidates to provide one other characteristic, explaining why this was important.

Some candidates provided reliability as their characteristic despite the question asking for 'one other'. It is important that candidates read questions correctly as failing to do so in this case reduced accessibility to these allocated marks.

Acceptable characteristics included validity which includes timely, accuracy and availability.

Question 4

- 4 The security of the tracking information is maintained through the use of log-in details which are valid for any given tour.

Discuss, using examples, how policies can be used by PhWSSE to maintain the security of the tracking information during a tour.

[10]

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.....

This question was marked using a banded response method. Candidates received marks based on the level of detail included in their answer, and the application of their answer to the case study.

The question also incorporated the quality of the answer in terms of correct use of technical terms and the coherent use of reasoning. This is denoted using an asterisk (*) next to the question number with candidates being informed of this in the rubric on the front of the examination paper.

To be given a mark in the lower range of the middle mark band, candidates had to describe how policies, research bullet 3, could be used to maintain the security of the tracking information during a tour.

Acceptable principles included the fact that access rights could be set to maintain limited access by authorised staff to the tracking information and that staff should be aware of their responsibilities through training. This could include security principles such as the correct log-in and log-out procedures being used and that staff are aware of the importance of not disclosing log-in details to anyone who is not authorised.

The greatest barrier to candidates achieving the higher mark in the middle mark band was the lack of application to the case study and the level of detail provided.

The level of detail provided, the evidence of explanations, with appropriate application, and examples, to the PhWSSE could enable candidates to be considered for a mark in the highest mark band. Candidates who achieved a mark in the highest mark band provided detailed explanation of the different policies that could be used and the contents of these policies. These candidates also incorporated in their answers valid applications of the policies and examples.

Question 5 (a)

- 5 During each event, the results of each sports competition are uploaded to the event webpage on the PhWSSE website. Schools can access the results using an RSS feed.

(a) What is the purpose of the RSS feed?

.....
.....
.....
..... [2]

The research required to be carried out in relation to bullet point 1 included RSS feeds. This question required candidates to describe the purpose of RSS feeds. Candidates could access all allocated marks if they applied their answer to the results being uploaded during the competitions. Acceptable answers included the fact that the RSS feeds will help the results to be accessed without having to open a separate webpage.

Question 5 (b)

(b) Describe **one** advantage to the competing schools of using RSS feeds.

.....
.....
.....
..... [2]

The focus of this part of the question was an advantage of using RSS feeds to the schools taking part in the competitions. Those candidates who provided answers relating to the schools were able to access the allocated marks.

Acceptable answers included the concept that those school staff not at the event could keep up to date with the results of each competition in the event or can keep up to date with the points scored by their school.

Question 5 (c)

(c) Describe **one** disadvantage to PhWSSE of using RSS feeds.

.....

.....

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..... [2]

The focus of this part of the question was one disadvantage to PhWSSE of using RSS feeds. Again, those candidates who read the question correctly were generally able to access the allocated marks.

Acceptable answers included the idea that not all browsers support RSS feeds so the results may have to be provided in a different real-time feature on the website which would mean duplicating the task.

Question 5 (d)

(d) When the tour has finished the results are collated. The PhWSSE website is updated to show the points and ranking for all schools in each sport across all events.

Identify the type of information source of the results used by PhWSSE, justifying your choice.

Information Source

Justification

.....

.....

..... [3]

This part of the question required candidates to identify the type of information source and provide a justification for their answer. To be considered awarding marks for the justification the information source had to have been given a mark.

Where candidates were unable to provide the correct information source – internal / primary, this limited accessibility to the marks given for the justification.

The pre-release material provides details of the process of collating the points when the PhWSSE staff have returned to Nice. This should have provided some indication that the results are already held by PhWSSE and, as such, the source is within PhWSSE.

Section B overview

Candidates did not need to apply their responses to PhWSSE in this section of the external examination.

The scenario for this section related to a crime prevention charity and crime statistics. As such, all examples, where required, should be applicable to this scenario.

Question 6 (a)

You do not need the case study to answer these questions.

- 6** A crime prevention charity provides help and assistance to people who have been the victims of crime. The charity also collects and collates crime statistics for publication on neighbourhood websites.

- (a)** The charity collects some statistics from big data sets.

Explain, using an example, what is meant by the term big data.

.....

.....

.....

..... **[4]**

This was a knowledge recall question requiring candidates to describe what is meant by big data providing an example.

Many candidates were able to access one out of the 4 allocated marks by providing an answer that related to big data being exceptionally large. However, few candidates were able to provide further details that big data is too complex to be analysed using traditional methods.

Where examples were provided these tended to relate to the scenario so enabling candidates to be given the mark allocated for the example.

Question 6 (c)

(c)* Some of the statistics are collected from local police forces.

Discuss, using examples, how the Protection of Freedoms Act (2012) should be considered by police forces when they are carrying out criminal investigations.

[10]

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This question was marked using a banded response method. Candidates were given marks based on the level of detail included in their answer, and the application of their answer to the scenario.

The question also incorporated the quality of the answer in terms of correct use of technical terms and the coherent use of reasoning. This is denoted using an asterisk (*) next to the question number with candidates being informed of this in the rubric on the front of the examination paper.

Many of the answers provided by candidates demonstrated a knowledge gap for this part of the question. The Protection of Freedoms Act (2012) is included in the unit specification LO4.1.

Many candidates either did not answer the question or provided answers that talked about how the Police can deal with crime suspects or criminal trials.

Acceptable answers could include the guidelines relating to the use and disposal of biometric data or the safeguarding of vulnerable people relating to disclosure of criminal records.

Question 7 (b) (i)

(b) When the statistics have been collated and analysed the visualisation of data analysis tool is used to present the data.

(i) Justify the use of the visualisation of data analysis tool to present the data.

.....
.....
..... [4]

This question required a justification of the use of the visualisation of data analysis tool when the statistics are to be presented. References to the use of charts and graphs would have enabled marks to have been given for this question.

Many candidates provided answers which achieved all allocated marks. The answers referenced the facts that presenting the statistics visually would help with identifying trends and patterns and that it is easier to interpret statistics when they are presented in a chart / graph.

Question 7 (b) (ii)

(ii) One type of visualisation of data analysis tool that could be used to present the data is a bar chart.

Identify **two** other types of visualisation of data analysis tools that could be used to present the data.

1.....
2.....

[2]

Many candidates were able to access the allocated marks for this part of the question by providing two different types of charts, for example line, or pie.

Those candidates who did not achieve all allocate marks either provided an answer of bar, which was given in the question, or graph which was considered too vague to be given a mark.

Question 8 (a)

8 The statistics are stored securely but need to conform to the information security principle of availability.

(a) One information security risk to the stored data is intentional tampering with the data. Identify and describe **one** other information security risk to the stored statistics.

Security Risk.....

Description.....

.....

.....

.....

[3]

The answers to this question appeared to demonstrate a knowledge gap for many candidates. Information security risks are detailed in LO6.2 of the unit specification.

Some candidates provided a generic security risk of 'hacking / hackers'. This was an acceptable answer as this can be included in the security risk of 'unauthorised access to data'. Where candidates provided this generic answer, they were then able to provide further description which could be credited with marks.

Question 8 (b)

(b) Explain what is meant by the information security principle of availability.

.....

.....

.....

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.....

.....

[3]

This question required candidates to explain what is meant by availability in relation to information security. Many candidates were able to access the allocated marks by providing an answer which covered the fundamental principle of availability.

An acceptable answer included, for example, the fact that information is always available, accessible when it is needed by those who are authorised to access it.

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