CAMBRIDGE TECHNICALS LEVEL 3 (2016)

Examiners' report

IT

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Unit 2 Summer 2022 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

It was pleasing to note that the overall performance of the candidate 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 words 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 responses 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 a Holiday Cottage Rental Company (PHHC). 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 responses to the case study. It was, however, noted that there was evidence of knowledge gaps from the candidates' responses 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 responses from previous sessions.

OCR support
i	Further guidance relating to the case study, research bullets and how these relate to the questions in Section A can be found at [here]().

Candidates who did well on this paper generally did the following:	Candidates who did less well on this paper generally did the following:
• applied their responses in Section A to the pre-release context • answered questions in Section B in the context of the context of online courses provided by a university • understood the question command words and the demands of these.	• provided limited application of the responses in Section A to the pre-release case study • provided responses which did not apply to the context in Section B.

Candidates who did well on this paper generally did the following:	Candidates who did less well on this paper generally did the following:

Section A overview

This section of the external examination was directly links to the case study, Holiday Cottage Rental Company (PHHC).
Question 1 was directly linked to bullet point 1 of the research points.
Question 2 was directly linked to bullet point 1 of the research points.
Question 3 was directly linked to bullet points 1 and 4 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 2 and 3 of the research points.
Question 6 was directly linked to bullet point 5 of the research points.
Question 7 was directly linked to bullet point 1 of the research points.

Question 1

This section relates to the case study on PHHC.

1   Customers can view a 360° virtual tour of some of the cottages.

The file is streamed from the PHHC server.

Describe **one** advantage and **one** disadvantage to the customers of the 360° virtual tours being streamed.

Advantage ....

....

....

....

Disadvantage ....

....

....

[4]

The focus of this part of the question was on the advantage and disadvantage of streaming 360° tours to the customers of PHHC. Many candidates were able to access 1 mark each for the advantage and disadvantage. To access the second mark allocated for the advantage and disadvantage the response needed to be fully applied and relevant to the customers rather than focusing on PHHC. However, many candidates provided vague descriptions which did not apply to PHHC and streaming the 360° tours.

Question 2

2 The PHHC website has an external link to a web-based currency converter.

The link is included in the external information source category.

Explain why the web-based currency converter would be included in the external information source category.

....

....

....

....

....

.... **[3]**

Many candidates were able to provide an indication that the web-based currency converter would be included in the external category as it is an external website and not hosted on the PHHC website.

However, they were unable to provide further explanation for this categorisation. As such, this question demonstrated a knowledge gap for many candidates.

Acceptable responses could include the fact that a link is included on the PHHC website which takes the user to the currency converter on a different browsing window. These details were provided in the case study.

Question 3 (a) (i)

3   When customers are booking a cottage they can choose to opt out of receiving marketing communication from PHHC.

   (a)   (i)   Identify the regulation that relates to customers being able to opt out of marketing communication.

   .... **[1]**

Question 3 (a) (ii)

   (ii)   Explain **two** actions that PHHC should take to comply with this regulation.

   1 ....

   ....

   ....

   2 ....

   ....

   ....
   [6]

Details were provided in the case study which related to the users of the PHHC website being able to opt-in or opt-out of receiving marketing communication from PHHC. The requirement for customers to select their choice relating to marketing communications is covered in the Privacy and Electronic communications Regulations or the Data Protection Act. This formed the response required for part a(i) of this question.

Part a(ii) focused on the actions that needed to be taken by PHHC to comply with the identified legislation. Where candidates had been given marks for part a(i) they were able to provide explanations which generally accessed all the allocated marks. Acceptable responses included that PHHC only contacted customers if they had opted-in and only use the method that customers had agreed to. Marks were also given for generic actions such as keeping customers data up to date / secure.

If candidates did not access the mark allocated for part a(i) they were unable to be considered for marks for part a(ii).

Question 3 (b)

(b) A box is ticked if customers choose to opt out.

Identify the data type used for the tick box.

Justify your answer.

Data type ....

Justification...

....

....

....

....

[3]

Details were provided in the case study relating to the action that needed to be taken by the customer if they did not want to receive marketing communication, this action was the ticking of a box.

By candidates understanding that the box was either ticked or not should have led to the understanding that the data type used was Boolean. Acceptable justifications included the fact the box only has two options.

If candidates did not access the mark allocated for identifying the correct data type, they were unable to be considered for marks for the justification.

Question 4

4* Owners and customers renting their cottage communicate by email.

Discuss the benefits and limitations of using this communication method.

[10]

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

The question also incorporated the quality of the response in terms of correct use of technical terms and the coherent use of reasoning. This is denoted by the use of a * 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 middle mark band, candidates had to describe the benefits and limitations of the owners and customers using email to communicate.

Acceptable benefits included attachments can be sent and emails provide an audit trail while acceptable limitations included emails can be delivered into a spam / junk folder and viruses can be attached to emails.

The greatest barrier to candidates being given the higher mark in the middle mark band was the lack of application to the case study and the level of detail provided. Candidates should be discouraged from using, at this level, words such as quicker, easier, or cheaper without further clarification. For example, quicker as a point would not be given marks however, faster than writing and delivering a traditional letter could be considered.

The level of detail provided, the evidence of explanations, with appropriate application, and examples, to the owners and customers 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 a range of different benefits and limitations including relevant example and using subject specific terminology.

Question 5 (a)

5　Owners access a secure area of the website to access details of their cottage.

(a)　Explain why the owners' secure area of the website would be included in the extranet type of www network technology.

....

....

....

....

....

.... **[3]**

Details are provided in the case study relating to the owner secure area of the PHHC website. The questions required candidates to explain why this area would be defined as an extranet. To access this part of the PHHC website a username and password is required with the owners not being employed by PHHC. In addition to this the owners could be located in different countries.

These details, as provided in the case study, should have provided candidates with an understanding of the www network technology this area would be included in.

Question 5 (b)

(b)　Identify the type of information system structure the owners' area of the website would be included in.

.... **[1]**

The owner's area of the website would be included in the closed information system structure. Details are provided about this area in the case study where it is clearly defined that log-in details are required to access this area of the PHHC website.

Question 6

6   PHHC stores records of customers' and owners' personal details in a database on the main server.

Identify and describe **two** physical protection methods that could be used to protect the main server.

1 ....

....

2 ....

....

....

[6]

The focus of this question was on the physical security methods that could be used to protect the main server. It was concerning to note that a number of candidates provided responses relating to logical protection measures.

It was also noted that some candidates provided more than two protection measures within their responses. Where numbers are provided in the question it is only the first, in this case two, identifications that are considered for marks.

Those candidates who correctly identified acceptable physical protection measures were usually able to access all allocated marks.

Question 7

7   Customers are encouraged to leave a review when their stay has ended.

The star rating is classified as quantitative data.

Explain why the star rating is classified as quantitative data.

....

....

....

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....

.... **[3]**

Many candidates appeared to confuse quantitative data, the focus of this question, with qualitative data. This strategy meant than no marks could be given.

Details were provided in the case study about the format of the customer reviews which included a star rating. As the star rating was defined as being on a scale of 1 – 5 this should have led candidates to understand that the star rating is numeric and can be measured both characteristics of quantitative data.

Section B overview

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

The scenario for this section related to online courses provided by a university. As such, all examples, where required, should be applicable to this scenario.

Question 8 (a)

A UK-based university provides a range of free online courses each academic year.

Students need to register to access the course content.

8   **(a)**   Identify the category of information holders the university would be included in.

.... **[1]**

Many candidates were able to correctly identify that a university would be included in the Education category of information holders.

Question 8 (b)

(b)   The online courses are accessed through the internet.

Describe what is meant by the internet.

....

....

....

....

....

.... **[3]**

This question assessed the theoretical knowledge relating to the internet, LO1.4. It was noted that many candidates are still confusing the internet with the world wide web. Where candidates did provide a response relating to the internet, they were able to access all allocated marks.

Question 9 (a) (i)

9   Students need to register before they can take any of the online courses. To register, personal information needs to be input.

(a)   The university stores the personal information on their servers.

(i)   Identify the information management step that should be applied to the personal information stored on the servers.

.... **[1]**

Question 9 (a) (ii)

(ii)   Identify and describe **one** impact of this step on the university.

Impact ....

....

Description ....

....

....

....
[3]

The focus of part a(i) of this question was on the information management steps as detailed in the unit specification, LO2.4. Personal data stored on a server needs to be secured.

Part a(ii) required candidates to provide the identification and description of one impact of this step on the university. Acceptable impacts included increased costs for protection measures or that the university needs to securely store this information as this would be a non-compliance with legislation

If candidates did not access the mark allocated for part a(i) they were unable to be considered for marks for part a(ii).

Question 9 (b)

(b) The university should ensure that the stored personal information demonstrates the information security principle of confidentiality.

Explain what is meant by the information security principle of confidentiality.

....

....

....

....

....

.... **[3]**

The focus of this part of the question was on an explanation of confidentiality. Many candidates were able to access all marks by providing responses that related to that access should only be given to authorised users and that the data needs to be kept safe.

Question 9 (c)

(c) The students create a profile which includes their name and the course they are currently taking.

The students can set their profile to private or public.

Explain the difference between the private and public information classification.

....

....

....

.... **[2]**

In their responses to this part of the question, some candidates demonstrated a misconception relating to the private information classification. Many candidates provided a response relating to 'no-one / only the person whose data it is should see it'. The private classification relates to restricted access, in that only authorised people are able to see private classified data.

Most candidates did provide a suitable response relating to the public information classification.

Question 10 (a)

10 Courses can be completed online or can be downloaded.

Students could use a solid state storage media to store the downloaded courses.

(a) Identify and describe **one** characteristic of solid state media.

Characteristic..

....

Description..

....

....

....

[3]

This question focused on the characteristics of solid-state media. Solid-state media can be internal or external to a device. Many candidates felt that a characteristic of solid-state media was that it was portable. As the question did not define a type of solid-state media device, this was too vague and could not be considered for marks.

Acceptable characteristics included robust / durable or mutability. Where candidates did identify a correct characteristic, they were generally able to access the 2 marks allocated for the description.

If candidates did not access the mark allocated for the characteristic, they were unable to be considered for marks for the description.

Question 10 (b)

(b) Describe **one** advantage to a student of using solid state media to store the downloaded course.

....

....

....

.... **[2]**

The focus of this part of the question was an advantage to the student of using solid-state media to store downloaded courses. The advantage described had to be appropriate to a student. Where candidates did focus on the student acceptable responses included a high storage capacity meaning a large number of topics can be stored.

Question 10 (c)

Some of the students have a visual impairment.

(c) Identify the information style that should be used to allow students with a visual impairment access to the online courses.

Justify your answer.

Information style ....

Justification ....

....

....

....

....

....

[4]

Question 10 (d)

(d) Identify and describe the information style that should be used for the certificate of completion for students with a visual impairment.

Information style ....

Description ....

....

....

....

....

[3]

The focus of parts (c) and (d) is for students who have a visual impairment. Part (c) related to the actual online course while part (d) related to a printed document – the certification of completion. A significant number of candidates provided responses that were muddled, e.g., audio for the document and braille for the courses.

A misconception about the certificate was that tactile images could be used, while the correct response was braille.

If candidates did not access the mark allocated for identifying the correct information style, they were unable to be considered for marks for the description / justification.

Question 11

11* The university has been the victim of a cyber-attack.

Discuss, using examples, how the Computer Misuse Act 1990 may have been broken during the cyber-attack.

[10]

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

The question also incorporated the quality of the response in terms of correct use of technical terms and the coherent use of reasoning. This is denoted by the use of a * 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 middle mark band, candidates had to describe how the Computer Misuse Act may have been broken.

Acceptable benefits included a description of the illegal activities covered by the Computer Misuse Act such as gaining unauthorised access to computer materials and examples of how the Act may have been broken such as changes to data being made.

The greatest barrier to candidates being given the higher mark in the middle mark band was the lack of application to the scenario and the level of detail provided.

The level of detail provided, the evidence of explanations, with appropriate application, and examples, related to the university 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 a range of different examples of how the Computer Misuse Act may have been broken using subject specific terminology.

Question 11

Question 12 (a)

12 At the end of each academic year the university analyses the type of courses that have been taken by students and uses this information to decide what courses to offer in future.

(a) Explain how charts and graphs can be used by the university when analysing the courses that have been taken by students.

....

....

....

....

....

.... **[3]**

This part of the question focuses on the use of charts and graphs when analysing the type of courses that have been taken. Some candidate's mis-interpreted the question and focused their response on the marks / grades that were achieved by the students.

When analysing data, graphs and charts can be used to visually show data which can be interpreted by showing trends and patterns. Some candidates used an example of a graph / charts, for example a bar chart, to exemplify a response that related to being able to identify the most and least popular courses. This strategy enabled candidates to clarify their response.

Question 12 (b)

(b) The university uses a Management Information System (MIS) when deciding what courses to offer.

What is the purpose of an MIS?

....

....

....

.... **[2]**

This question focused on the theoretical knowledge that should have been covered during the teaching of this unit, LO3.3. Many candidates provided responses that demonstrated a good level of knowledge and were able to achieve the 2 marks allocated to this question.

However, some candidates provided responses that related to an MIS collecting the data which demonstrated a knowledge gap. An MIS does not collect information / data but organises and manages the data / information.

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