CAMBRIDGE TECHNICALS LEVEL 3 (2016)

Examiners' report

IT

05838–05842, 05877, 05885, 05886

Unit 2 Summer 2019 series

Version 1

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 can be downloaded from OCR.
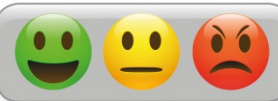
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Paper Unit 2 series overview

The overall performance of the candidates had improved from the June 2018 session. 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 prior to being entered for the external examination.

The correlation between content, context and command word also 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. Some candidates appeared to be unfamiliar with the context of the case study, for this external examination this was PH Disaster Aid. 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.

Section A overview

This section of the external examination was directly linked to the case study, PH Disaster Aid.

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

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

Question 3 was directly linked to bullet point 2 of the research points.

Question 4 was directly linked to bullet point 1 of the research points.

Question 5 was directly linked to bullet points 4 and 5 of the research points.

Question 6 was directly linked to bullet point 3 of the research points.

Question 1 (a) (i)

1   PH Disaster Aid stores details of the approved team members in a database.

    (a) (i)   Identify the information style that has been applied to the Contact_Number field.

    ....**[1]**

Part a(i) of the question required candidates to identify the information style that had been applied to the *Contact_Number* field in the database. It was worrying to note that many candidates provided answers that referred to a numeric information style. This is incorrect with the correct answer being either text or string.

Question 1 (a) (ii)

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

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....**[3]**

Part a(ii) of this question required candidates to explain why the text / string information style had been used. As many candidates had provided an incorrect answer to part a(i) of this question, the explanations provided were also incorrect.

The text / string information style had been applied to the *Contact_Number* field because telephone numbers begin with a leading 0. By using the text / string information style these leading 0's would be maintained. In addition to this point, no calculations would be carried out on this field.

If a numerical information style was applied, then the leading 0's would be removed.

Question 1 (b)

(b) Identify the category of information holders in which PH Disaster Aid would be included.

....**[1]**

The final part of the question required candidates to identify the category of information holder that PH Disaster Aid would be included. Many candidates were able to correctly identify this as being a charity, as clearly defined in the pre-release case study. There were, however, a number of candidates who provided answers relating to a business or organisation.

Question 2

2　When a natural disaster happens, information needs to be accessed and collected by the country's government.

Explain **two** issues that may prevent the government from accessing this information.

[6]

1 ....

....

....

2 ....

....

....

The focus of this question was on the accessing and collection of information when a disaster has happened rather than the situation prior to the disaster. Many candidates were able to provide answers that related to the fact that power may have been disrupted, or failed, which meant that any information held on computer systems may not be able to be accessed. Other acceptable answers related to information which has already been collected about, for example, population in the affected areas may be stored on the Cloud and would be inaccessible due to power failure.

Candidates who provided answers relating to the information not being able to be accessed due to legislation or the country not having any technology because of the digital divide were not given.

Question 3

3* Information about the natural disaster is sent from the disaster area to enable the correct relief aid and specialist teams to be sent.

Discuss the consequences to the teams and the people who live in the disaster area if the information about the natural disaster is of poor quality.

[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 PH Disaster Aid (PHDA) teams and the people who live in the disaster area.

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 at least one consequence to either the PHDA teams or the people living in the area. Most candidates were able to access a mark in the middle mark band. The greatest barrier to candidates being given the higher mark band was the lack of application to the case study and the level of detail provided.

Many candidates provided answers relating to a range of different factors. For example, if the location is incorrectly reported then the PHDA teams would not go to the correct location of the disaster. This could leave the people living in the area in danger and at risk from, for example, disease and lack of food / water / shelter.

Other factors could include the incorrect resources or specialists being sent by PHDA which could mean that the correct resources and specialists need to be sent. This delay could mean that people die as the resources and specialists are no able to help with the disaster. This would have an impact on PHDA as money would be wasted by having to send further resources and specialists to the area.

The level of detail provided and the evidence of explanations, with appropriate application and examples related to PHDA teams and the affected people, could help candidates to be considered for a mark in the highest mark band. Candidates who achieved a mark in the highest mark band provided explanation of the consequences to PHDA teams and the affected people. Also, incorporated in their answers were valid applications and examples.

Question 4

4 Decisions will be made by the network coordinators about the number of seats and cargo space to allocate to each charity and organisation.

Identify the type of software that could be used to make these decisions. Justify your choice.

Software ....

Justification ....

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....

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[5]

Many candidates were able to provide an acceptable response of a spreadsheet or database. To be considered for the marks allocated for the justification, the mark for the correct type of software has to be given.

Acceptable answers relating to the justification of using spreadsheet software included the fact that calculations can be pre-set enabling modelling to be carried out. This would help the network co-ordinators to maximise the seats and cargo space allocated to each charity. Using spreadsheet software would also help charts & graphs to be created to help analysis to be done visually.

Acceptable answers relating to the justification of using database software included the fact that queries can be carried out to search for space on the planes and that pre-saved information on plane types, cargo space and the number of seats can be utilised.

Some candidates provided generic answers relating to the type of software which could be used, for example, application software. This was too vague. Candidates should be encouraged to be specific in their answers.

Question 5 (a)

5   Each time a team is sent to a disaster area, PHDA sends records of the attending team members to the network coordinator.

(a) Explain why it is important to maintain the integrity of these records.

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....**[4]**

This question focused on the records sent by PHDA to the network coordinator when the team has been assembled and finalised. The team is assembled based on the type of disaster that has occurred and which specialisms are needed. As the teams are being sent to disaster areas it is important that the information held in these records has a high level of integrity.

Many candidates were able to access some of the marks allocated to this part of the question by stating that the records have to be accurate, complete, fit for purpose and up-to-date. Some of the correct reasons for maintaining the integrity of these records include the fact that if the emergency contact is not up-to-date and an emergency happens to a team member then no-one would be notified of the issue. As the records include passport and visa numbers, if the integrity of these fields is not maintained then team members may be delayed in travelling to the disaster area.

Common misconceptions included the fact that the information is sensitive. While it is appreciated that some of the information may be sensitive, this does not have an impact on maintaining the integrity of the records.

Question 5 (b)

One piece of data held in the records is the Visa Number.

(b) Identify the **type** of source to which the above information might belong. Justify your choice.

Source ....

Justification ....

....

....

....

[3]

This part of the question focused on the visa numbers which have to be granted by the UK-based embassy of the country in which the disaster has occurred. To be considered for the marks allocated for the justification, the mark for the type of source has to be given.

It was worrying to note that many candidates were unable to identify the type of source of the visa numbers. Many candidates provided the answer of Government. It is stated in the case study that visas are granted by the UK-based embassy and then provided to PHDA to be included in the attending team records. As such, the visa number is provided by an external source to PHDA. One other acceptable answer was secondary.

Question 6 (a) (i)

6   The team members use handheld devices to record videos to send back to PH Disaster Aid.

(a) (i)   Identify one handheld device that could be used to record the videos.

....**[1]**

Most candidates were able to correctly identify a handheld device so accessing the mark allocated to this part of the question. Acceptable answers included smart phone, tablet or helmet camera. Those candidates who answered with 'handheld computer device' were unable to access the allocated mark as this was deemed to be too vague.

Question 6 (a) (ii)

(ii) Describe **one** advantage and **one** disadvantage of using this handheld device.

Advantage ....

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....

Disadvantage ....

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....

[4]

Most candidates were able to access all marks allocated to this question by providing an acceptable advantage and disadvantage. Candidates should be encouraged to consider any number requirements defined in a question.

There were instances of candidates providing two unlinked points for the advantage and disadvantage. This strategy limits the accessibility to all of the allocated marks. For example, where candidates simply identified portable with a high quality camera, this would only gain one mark for 'portable' with the rest of the answer not being considered for marks as one advantage had already been provided.

Question 6 (b)

(b) Describe **two** uses of these videos.

1. ....

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2. ....

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[4]

Most candidates were able to access all marks allocated for this part of the question. It was clear from some of the answers provided that candidates had carried out clear and detailed research relating to the use of the video information style.

Acceptable answers included the videos being used to assess the damage to see if extra / different equipment is needed or to put on the PHDA website to demonstrate the work they do to increase awareness of their work.

Section B overview

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

The scenarios for this section related to a school for Question 7 and a hotel for Question 8. As such, all examples, where required, should be applicable to the question scenario.

Question 7 (a)

7   A school holds records, in a database, about its students and staff. The records include personal details including name, gender, date of birth, any disabilities or medical problems and contact details.

(a)   The database uses separate tables to hold details of the students and the staff.

Explain **one** advantage of using separate tables for students and staff.

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....

....**[3]**

Many candidates were able to access the marks allocated for this part of the question. The answers demonstrated a good level of understanding about the data analysis tool of data tables. Many candidates provided answers relating to the fact that different information would be stored about the candidates and staff and so to have the tables split would help different fields to be utilised in the data tables.

Other acceptable answers included the fact that it is possible to have a candidate and a member of staff with the same name so by separating these groups there would be no confusion.

Question 7 (b)

(b) Using an example from the database, explain what is meant when classifying information as private.

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....**[4]**

The focus of this part of the question was on the private information classification type. Candidates needed to provide an explanation of this classification type and, to be able to access all allocated marks, include an example from the database.

It was pleasing to note that many candidates were able to access the allocated marks with an example being included in their answer. Acceptable answers included that private information should not be available to anyone without the data subject's permission and that the data refers to a specific individual. Acceptable examples included gender and disabilities.

Question 7 (c)

(c)* Discuss how the Equality Act should be considered when the school is using the records to select staff for a promotion.

[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 the Equality Act and selecting staff for a promotion.

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.

Many candidates were able to achieve a mark in the middle mark band. They were able to provide examples of the protected characteristics, e.g. race, gender, age, disability, and were able to apply these to a school situation.

To be confidently given a mark in the top mark band, candidates needed to demonstrate a good level of understanding through a clear explanation of how the Equality Act should be considered. Given at the start of this question was a list of fields which are held in the database and many candidates chose to focus, at least part of their answer, on one of the appropriate fields

Question 7 (d)

If a student moves to a different school, the data held in his/her record has to be sent to the new school. The data is transmitted online.

(d) Identify and describe **one** security method that can be taken to keep this information secure during transmission.

Security method...

....

Description ....

....

....

....

[4]

The focus of this part of the question was on the transmitting of data on-line. Many candidates were able to provide a correct answer for the security method, password or encryption, and so were able to access the marks allocated to the description. Some candidates did not understand that the details were being transmitted on-line and so, incorrectly, provided answers relating to, for example firewalls and anti-virus software.

Question 7 (e)

(e) Explain **one** impact to the student if the data is not transmitted securely.

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....**[3]**

Many candidates appeared to misread the question, failing to provide an impact to the candidate if the data was not transmitted securely. There were many generic answers relating to blackmail or being in danger. While these are valid answers there was no indication of the impact of these on the candidate. One acceptable answer was identity theft, with further expansion including loans / credit cards could be taken out in their name which could cause the candidate financial implications. These would be acceptable as there was no indication of the age of the candidate.

Question 8 (a)

8   A hotel is redeveloping its booking website.

(a) The booking website will use quantitative data.

   Explain what is meant by the term quantitative data.

....

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....**[2]**

This question was a knowledge recall question. It was pleasing to note that many candidates were able to provide a correct explanation of quantitative data. There were, however, some instances of candidates confusing quantitative data with qualitative data.

Question 8 (b)

(b) Identify **one** item of quantitative data that could be used in the booking website.

....**[1]**

Most candidates were able to provide an acceptable answer to this part of the question. Acceptable answers included the number of rooms required or the number of guests the booking was for.

Question 8 (c)

(c) Identify and describe **one** feature that should be included on the booking website to ensure compliance with the UN Convention on the Rights of Persons with Disabilities (UNCRPD).

Feature ....

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....

....

Description..

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....

....

[4]

Many candidates were able to identify one feature that should be included on the website to conform with the UNCRPD. This enabled the description answer to be considered for marks. Acceptable answers included Alt Tags and a screen reader.

It did, however, appear that some candidates did not read the question correctly, providing answers which related to the use of braille for this people who have visual impairments. This would not be appropriate on a website and so gained none of the marks allocated for this part of the question.

Question 8 (d)

(d) The booking website advertises that the hotel has reduced its carbon footprint.

Explain what is meant by the term 'reducing carbon footprint'.

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....[2]

It was pleasing to note that most candidates were able to provide an explanation of the term 'reducing carbon footprint'. The answers showed a good level of knowledge about the environment and how reducing carbon footprint can have an impact.

Question 8 (e) (i)

(e) (i) Identify the type of information system structure into which the booking website would be included.

....[1]

The answers to this part of the question appeared to demonstrate a knowledge gap relating to the different types of information systems structures. The correct answer was an open structure.

Question 8 (e) (ii)

(ii) Describe **one** benefit and **one** limitation of using this type of information system structure for the booking website.

Benefit..

....

....

....

Limitation...

....

....

....

[4]

Where candidates did not provide a correct answer to part (i) of the question, they were unable to access marks allocated to part (ii) of the question. Acceptable advantages for the open system include that anyone can use the booking website as user credentials are not required while acceptable disadvantages include that these are more susceptible to security breaches as the website is not secure.

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