OCR
Oxford Cambridge and RSA

CAMBRIDGE TECHNICALS LEVEL 3 (2016)

Examiners' report

INFORMATION TECHNOLOGY

05838–05842, 05877

Unit 1 January 2023 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.

Would you prefer a Word version?

Did you know that you can save this PDF as a Word file using Acrobat Professional?

Simply click on **File > Export to** and select **Microsoft Word**

(If you have opened this PDF in your browser you will need to save it first. Simply right click anywhere on the page and select **Save as . . .** to save the PDF. Then open the PDF in Acrobat Professional.)

If you do not have access to Acrobat Professional there are a number of **free** applications available that will also convert PDF to Word (search for PDF to Word converter).

Unit 1 series overview

Overall candidates were well-prepared and attempted the majority of questions. Candidates performed more consistently in Section A. There has certainly been a shift with an increased number of candidates identifying the correct area from the specification document. However, there is still a tendency to answer questions using either non-technical language or very generic terms (candidates use terms such as 'information' rather than specific data types for example). Many candidates continue to lose marks on the technical questions where an in-depth knowledge is required.

Candidates who did well on this paper generally did the following:	Candidates who did less well on this paper generally did the following:
• achieved 10+ marks in section A • made sure to identify first in an identify and describe style question • added context and expanded points in Questions 18 and 20.	• did not identify first in an identify and describe question • used generic terms rather than precise technical terminology.

Section A overview

Few candidates were seen who achieved full marks for Part A but most candidates achieved half of the marks. Questions 1, 5, 10,11,12,13,14 and 15 were most commonly answered correctly. The main areas of difficulty in this paper were Questions 3, 4, 6 and 8.

Section B overview

In this session there were more instances of candidates attempting to answer all questions than previously, although some of these were sometimes too vague/generic to award marks. Where specific technical knowledge and vocabulary needed to be applied, there was a drop in marks for some candidates. Question 16a is a good example of this. Naming laptop features that make them suitable for the PDR specialists required some technical terminology (mainly integrated) which was often missing.

There was good evidence of candidates providing a context to their responses on the long response Questions 18 and 20. This paper provided a good differentiation between candidate abilities with many candidates scoring low marks for the more technical responses to Questions 16c, 19b and 19c. Candidates who were able to achieve good marks on Questions 16c, 19b and 19c usually achieved overall scores in the 50s. A good proportion of well-prepared candidates were achieving marks in the 40s.

Question 16 (a)

16 Each of the PDR specialists is provided with a smartphone and laptop computer to help them with their work.

(a) Identify and describe **three** features of a laptop computer that make it suitable for use by the PDR specialists.

1 ....

....

....

2 ....

....

....

3 ....

....

....

[6]

Many candidates were able to identify 'Portability' but this was often the only feature identified. Some candidates did not identify a feature first and lost marks due to this. A small number of candidates were able to identify various inbuilt features.

Question 16 (b)

(b) Explain how the PDR specialists can use their smartphones to allow their laptops to communicate with the PDR London office.

....

....

....

.... **[2]**

In general, this question was well answered with candidates explaining setting up a hotspot for the laptop to connect to and use mobile data.

Question 16 (c)

(c) The London office network includes a switch.

Explain how a **switch** allows data to move around the network efficiently.

....

....

....

....

....

.... **[3]**

This very technical question requires specific knowledge of networking and the switch function as a part of it. This was commonly answered with generic or vague phrases about helping to improve speed.

Question 17

17 A hardware fault has developed with one of the computers in the PDR London office.

A technician follows a fault diagnosis plan to help them identify the hardware fault.

Place the steps in the **correct order** in the Hardware fault diagnosis plan below.

(a) Test theory

(b) Document results of investigation

(c) Create an action plan

(d) Verify problem

(e) Define theory of possible cause.

Hardware fault diagnosis plan	
1	Identify the problem
2	
3	
4	
5	
6	
7	End

[5]

This question was attempted well, with most candidates correctly identifying the position for documenting results. It was very rare for candidates to achieve 5 marks for this question.

Question 18*

18* The laptop computers have an off-the-shelf operating system installed.

Discuss the benefits and limitations of **off-the-shelf** operating systems.

....

....

....

....

....

....

.... **[10]**

This question was attempted by the majority of candidates and generally showed good knowledge of the subject matter. Many candidates were able to make several valid points and a small number were able to link these to the context of the question paper. Where candidates possibly lost out on marks was not taking the descriptions into explanations and expanding points further.

Question 18*

Question 19 (a)

19 When the rescue specialists are sent to a disaster zone, they need to keep in contact with the PDR London office.

(a) Word processing is one type of communication technology.

Identify and explain **two** other types of communication technologies that the PDR specialists could use when they are in a disaster zone.

1 ....

....

....

2 ....

....

....

[6]

Many candidates were able to identify email as a communication technology (4.2 in the specification). Some candidates were also able to identify instant messaging. SMS was a common answer, but this is a communication <u>method</u> (2.5 in the specification) and therefore was not awarded a mark.

Question 19 (b)

(b) An Internet Protocol (IP) is used to send data between the laptops and computers in the PDR office.

Explain the process used by IP to send the data.

....

....

....

....

....

.... **[3]**

Similar to question 16c in terms of needing an in-depth technical knowledge. This question asked about the process used to send data. Very few candidates scored 3 marks here and the more successful candidates were able to explain the process, rather than what IP is.

Question 19 (c)

(c) Explain **one** difference between how SMTP and POP deal with an email message.

....

....

....

.... **[2]**

Although many candidates gave a response to this question, very few candidates were able to correctly identify a difference between SMTP and POP protocols.

Question 20*

20* PDR are considering virtualising their office network.

Discuss the benefits and limitations of using **cloud virtualisation**.

....

....

....

....

....

.... **[10]**

This question was attempted by the majority of candidates and generally showed good knowledge of the subject matter. Several candidates were able to make several valid points and some were able to link these to the context of the question paper. Where candidates possibly lost out on marks was not taking the descriptions into explanations and expanding points further.

Question 21

21 PDR use business systems in the London office.

Explain the purpose of each of the following business systems.

Management Information System (MIS)

....

....

....

....

Standard Operating Procedure (SOP)

....

....

....

....

Helpdesk

....

....

....

....

[6]

Most candidates attempted at least part of this question. Very few achieved the full 6 marks available. Many candidates mistook an MIS for a CRM. This was also a question where candidates were prone to give vague answers. For example, helpdesk – somewhere that people can get help with something. Candidates answering using technical terms such as users or clients and technical support tended to do well on this question.

Question 22 (a)

22 PDR deal with operational issues including security of information, on a daily basis.

(a) Explain why the security of information is an **operational issue** for PDR.

....

....

....

.... **[2]**

Some candidates answered in terms of compliance with legislation and there were examples of candidates explaining that protecting data was an operational issue. There was a high proportion of non-technical language in answering this question referring to information which was too vague.

Question 22 (b)

(b) Physical security measures can be used to address the issue of security of information.

Identify **one** other way that PDR could address the issue of security of information.

....

.... **[1]**

This question was answered quite well. Candidates that gave a one word answer tended to do well as this made them focus on identifying the measure. Anti-virus, username/passwords, firewall and encryption were popular answers.

Question 22 (c)

(c) Identify and describe **two** physical security methods that could be used to secure the laptops provided to the PDR specialists.

1 ....

....

....

....

....

....

2 ....

....

....

....

....

....

[6]

This question was attempted by most candidates and locks was a very popular answer. Biometrics was also a popular answer and usually followed by a good description. There were several cases where the security method was not identified first and this lost marks for the candidate. Identify can usually be answered with one word before going on to describe for further marks.

OCR support

A good example of an answer for this question would be:

Biometrics – laptops can be bought with fingerprint scanners which will only allow authorised users to log in.

Question 22 (d)

(d) Identify **one** piece of legislation that PDR must comply with when disposing of old equipment and describe how they can comply with the legislation.

....

....

....

....

....

.... **[3]**

This question was attempted by many candidates. Unfortunately, not all candidates were able to identify the name of a relevant piece of legislation before describing how to comply and therefore lost marks.

OCR support

(i)   A good example of an answer for this question would be:

DPA – data on the hard disks must be electronically wiped before the old equipment is disposed of by a licensed company.

Supporting you

Reviews of marking

If any of your students' results are not as expected, you may wish to consider one of our post-results services. For full information about the options available visit the OCR website.

Keep up-to-date

We send a monthly bulletin to tell you about important updates.
You can also sign up for your subject specific updates. If you haven't already, sign up here.

OCR Professional Development

Attend one of our popular CPD courses to hear directly from a senior assessor or drop in to a Q&A session. Most of our courses are delivered live via an online platform, so you can attend from any location.

Please find details for all our courses on the relevant subject page on our website or visit OCR professional development.

Signed up for ExamBuilder?

ExamBuilder is the question builder platform for a range of our GCSE, A Level, Cambridge Nationals and Cambridge Technicals qualifications. Find out more.

ExamBuilder is **free for all OCR centres** with an Interchange account and gives you unlimited users per centre. We need an Interchange username to validate the identity of your centre's first user account for ExamBuilder.

If you do not have an Interchange account please contact your centre administrator (usually the Exams Officer) to request a username, or nominate an existing Interchange user in your department.

Need to get in touch?

If you ever have any questions about OCR qualifications or services (including administration, logistics and teaching) please feel free to get in touch with our customer support centre.

Call us on
01223 553998

Alternatively, you can email us on
support@ocr.org.uk

For more information visit
- **ocr.org.uk/qualifications/resource-finder**
- **ocr.org.uk**
- **facebook.com/ocrexams**
- **twitter.com/ocrexams**
- **instagram.com/ocrexaminations**
- **linkedin.com/company/ocr**
- **youtube.com/ocrexams**

We really value your feedback

Click to send us an autogenerated email about this resource. Add comments if you want to. Let us know how we can improve this resource or what else you need. Your email address will not be used or shared for any marketing purposes.

👍 **I like this**   👎 **I dislike this**

Please note – web links are correct at date of publication but other websites may change over time. If you have any problems with a link you may want to navigate to that organisation's website for a direct search.