

## **CAMBRIDGE TECHNICALS LEVEL 3 (2016)**

*Examiners' report*

***IT***



**05838–05842, 05877, 05885, 05886**

## **Unit 1 Summer 2019 series**

Version 1

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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.

## Paper Unit 1 series overview

Overall candidates were well prepared and attempted most questions. More centres now seem to prepare candidates for an examination that will require terminology from the specification. However, there is still a tendency to answer questions using either non-technical language or very generic terms (for example the question on attributes for a network manager) and the later, more technical questions have again not been prepared for.

## Section A overview

Few candidates were seen who achieved full marks for Section A but most candidates achieved two thirds of the marks. Question 7 was the response several candidates with 14 marks did not answer correctly. Although noticeably a difficult question for candidates who were achieving high marks, it was less so for other candidates. Questions 9, 10 and 11 were frequently answered correctly as was Question15.

## Section B overview

Full marks were quite often not achieved on Q16a, Q16b, Q17, Q19 and Q20. A high proportion of candidates provided answers for all the questions although some of these were not relevant. Questions 19b, 19c, 19d and Question 20 were quite often not attempted by some candidates.

There was good evidence of candidates providing a context to their responses on the long answer questions. This paper provided a good differentiation between candidate abilities with many candidates scoring low marks for the more technical responses to Q19 and Q20. Candidates who were able to achieve good marks on Q19 and Q20 achieved overall scores in the 50s. A good proportion of well prepared candidates were achieving marks in the 40s.

### Question 16 (a)

E5RQ Films has a number of small cinemas throughout the country. Each cinema has three Personal Computers (PCs) which are connected in a client server network.

**16** E5RQ Films IT department is to upgrade the Personal Computers (PCs) in the cinemas with new components.

**(a)** Describe the purpose of the following components in a Personal Computer (PC):

Motherboard

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RAM

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.....  
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.....  
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Hard drive

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**[6]**

A small proportion of candidates provided a response worth 2 marks for each of the descriptions. Some candidates provided almost model responses to all three parts of this question. Hard drive presented the most difficulties with quite a few candidates receiving only one mark for their response.

### Question 16 (b)

(b) E5RQ Films will need to dispose of the old components.

Identify **two** pieces of legislation that need to be followed when disposing of the old components.

1.....

.....

2.....

.....

[2]

Most candidates were able to recall the name of one piece of legislation that was relevant here. Some missed the legislative aspect of the question and gave responses more suitable to previous question papers and green IT. Some candidates did not read the question properly and offered methods of hardware disposal.

### Question 16 (c)

(c) E5RQ Films uses the Personal Computers (PCs) to create information sheets for staff about new film releases.

Identify **two** output devices that could be used to produce the information sheets.

1.....

.....

2.....

.....

[2]

Most candidates achieved 1 mark here for an appropriate output device, the second mark was not always achieved because the second output device was not suitable for producing an information sheet, e.g. fax, projector. Some candidates offered responses relating to input devices.

### Question 16 (d)

(d) E5RQ Films could use bespoke software or open source software on all its Personal Computers (PCs).

Identify **one** feature of bespoke software.

.....

..... [1]

This question was answered well by most candidates. Most candidates offered a response relating to the tailored nature of bespoke software. A few candidates gave responses more appropriate for open source or off the shelf software.



### Question 16 (e)

(e)\* Discuss the benefits and risks of E5RQ Films using open source software.

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.....

[10]

Most candidates attempted this question and the majority achieved at least a Level 2. A number of candidates provided well written responses but did not explain more than one benefit and limitation/risk so only achieved a Level 2 grade. Quite a number of candidates were able to relate their explanations to the impact they would have on a business like E5RQ Films and in their conclusions were not in favour of open source. Others were able to relate open source to Linux and could see its potential for use by multi-national companies. Weaker candidates could only relate open source to their personal use of it and its potential for hacking into systems by finding backdoors in the code or made comparison to bespoke software and business advantage.

### Question 17 (a)

17 The E5RQ Films IT department is to produce a booklet for the cinema staff to highlight security issues relating to the use of the Personal Computers (PCs).

(a) Identify and describe **two** physical security methods E5RQ Films could use to prevent unauthorised access to the data stored on the cinema Personal Computers (PCs).

Method 1.....

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Method 2.....

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[4]

Many candidates struggled to provide good responses to this question. Those that did identified and described two methods and achieved full marks. Others identified the method but did not describe how it prevented unauthorised access only and achieved half the marks available. A few misunderstood the question and did not write about physical security methods such as usernames and passwords.

### Question 17 (b)

(b) Identify and describe **three** security threats, other than unauthorised access, that could be included in the booklet.

1.....  
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.....

2.....  
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3.....  
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[6]

A high proportion of candidates were able to identify three security threats. A smaller number were able to describe all three adequately. It was very clear when candidates had been introduced to the terminology as given in the specification as they were able to identify threats without repetition and sometimes with good description. Weaker candidates wrote in more generic terms about malware, hacking and spyware or spent their time putting their response into the context of the scenario rather than responding to the question prompt.

### Question 18

**18\*** E5RQ Films wants to employ a new Network Manager to lead a small team of Network Engineers to provide safe and secure data transfer between the cinemas.

Discuss the personal attributes that the Network Manager will need.

.....

.....

.....

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.....

.....

**[10]**

A good number of candidates wrote a Level 3 response here and achieved good marks. Some included responses from previous question papers which were to do with being ready for work rather than focussing on the question on this paper. There was some evidence of candidates having experience of what makes a good manager and that helped them to engage with the question and illustrate the attributes mentioned. A small number of candidates seemed to think that Network Managers had a teaching role. Those candidates prepared with the specification in mind were able to give several desirable attributes and explain why in context.

### Question 19 (a)

19 E5RQ Films uses a client server network to connect the three Personal Computers (PCs) in each individual cinema.

(a) Explain **two** advantages and **two** disadvantages of using a client server network.

Advantage 1

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Advantage 2

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Disadvantage 1

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.....  
.....

Disadvantage 2

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.....

**[8]**

Most candidates were able to partially explain one advantage of using a client server network, such as sharing files. A few also realised that if the server failed the network would go down. Others had little idea what a client server network was or gave responses that covered network topology or comparison with a different type of network selected by the candidate.

### Question 19 (b)

E5RQ Films is considering introducing a WAN network, to link all the cinemas together.

(b) Explain the purpose of a web server.

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

Only a small number of candidates achieved any marks for their response here. They were able to explain that webservers hosted websites. Some were able to give responses about IP addresses and URLs. One candidate wrote about server-side use of webservers. Most candidate gave responses that had more to do with web browsers or a generic server.

### Question 19 (c)

(c) Explain the purpose of a hypervisor server.

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.....[4]

Few candidates provided a full response to this question. Others managed to identify that it was related to virtualisation. A few provided responses to questions about virtual servers from previous question papers. There were also some candidates that knew the concept of running multiple operating systems on the same server. Many candidates left this section blank. There was a distinct lack of knowledge here.



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