



# Examiners' Report Lead Examiner Feedback

January 2021

Pearson BTEC Nationals  
In Computing (31769H)  
Unit 2: Fundamentals of computer systems

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January 2021

31769H\_2101\_ER

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## Introduction

This examination is now well established with this having been the seventh examination of Unit 2 (Fundamentals of Computer systems) for BTEC Level 3 National in computing which became available for first teaching in September 2016.

This unit is a mandatory unit for all learners studying either the Extended Certificate (360 GLH), Foundation Diploma (510 GLH) or Extended Diploma (1080 GLH).

This unit, along with Unit 1 (Principles of Computer Science), are assessed through a written examination paper. The examination is designed to test learners' understanding of computer systems within a range of contexts. The paper is divided into four main questions, each with a number of sub parts. Each main question is based around a unique scenario; each scenario is outlined at the beginning of that question and additional information and/or stimulus is provided with individual parts as required.

While appropriate credit is given for learners who demonstrate appropriate 'stand-alone' knowledge, more successful learners can apply their understanding to the scenarios provided in the question.

The paper is designed to assess the full grade range of the qualification; as such the paper is ramped so that it gradually increases in difficulty as the questions progress with a higher percentage of 'Pass' targeted marks in the earlier parts of the paper and the higher-grade questions towards the end.

## Introduction to the Overall Performance of the Unit

While detailed analysis of specific questions in the paper appears later in this report, some general comparisons can be made here to the January 2020 paper. It was noted that that overall learner performance showed an improvement, in terms of the mean mark, quality of response, and general examination technique, compared to the January 2020. However, we must be a little careful with such comparisons as, due to the national situation, there are significantly fewer entries than in previous series.

General understanding of the basic subject knowledge and vocabulary shows some improvement, but there continues to be pockets of learners showing significant gaps in basic computing terminology and shortfalls in

knowledge from the core content of the specification, which prevents learners from accessing marks in a number of questions.

Improvement continues to be seen in exam general exam technique, learners are aware of the requirements of most command verbs, and as a result their answers are usually structured and presented in an appropriate way. Many learners still appear to struggle when responding to 'Describe how...' style questions, where learners often fail to show the required technical understanding. Longer 'Explain' questions (3 or 4 marks) also cause some learners where they do not adequately build upon their initial points.

It was pleasing to see that in this series there was evidence of some improvement in the quality of responses in the extended writing questions. While often the responses are not sufficient to access the highest marks, there is a greater percentage of learners accessing moving out of the lower mark band and into the middle band. A

Centres are reminded that the extended questions are designed to differentiate across Pass, Merit and Distinction, therefore when preparing learners they should be aware that to access the middle and top mark bands, responses should demonstrate good subject knowledge that is applied in context.

While it was clear that some centres have made use of a range of support materials, such as the sample assessment materials, there was still many learners repeating answers verbatim from sample materials/past papers when presented with similar topics. While these learners were able to demonstrate some understanding and were duly credited, these responses were often not applied to the given scenario and therefore often only demonstrated superficial understanding. Centres are encouraged to work with learners in exploring Computing use in a range of scenarios and adapting responses to suit these scenarios.

## Individual Questions

### Q1a

Performance on this question was satisfactory with most learners able to access marks and the majority gaining at least 2 out of the four marks available. Typically, learners were able to identify two features of a smartphone, but many did not sufficiently explain their use in the given context.

### Q1a Example Response:

(a) Staff use a smartphone when checking a customer's ticket.

Explain **two** features of a **smartphone** that make it suitable for checking a ticket.

(4)

#### Feature 1

~~A Smartphone~~ was one feature of a smartphone which will make it suitable for checking a ticket is that it has a camera which can be used in different apps to scan the barcode.

#### Feature 2

another feature of a smartphone which can make it suitable for checking a ticket is you can create an app which is easily accessible and customers can present there barcode in the entrance to the venue to a member of staff.

### Lead Examiner Commentary

#### Feature 1

Camera (1) To scan the barcode (1)

#### Feature 2

Apps (1) not enough understanding of the role of the app in relation to the barcode (i.e. to decode it) demonstrated to award the expansion mark

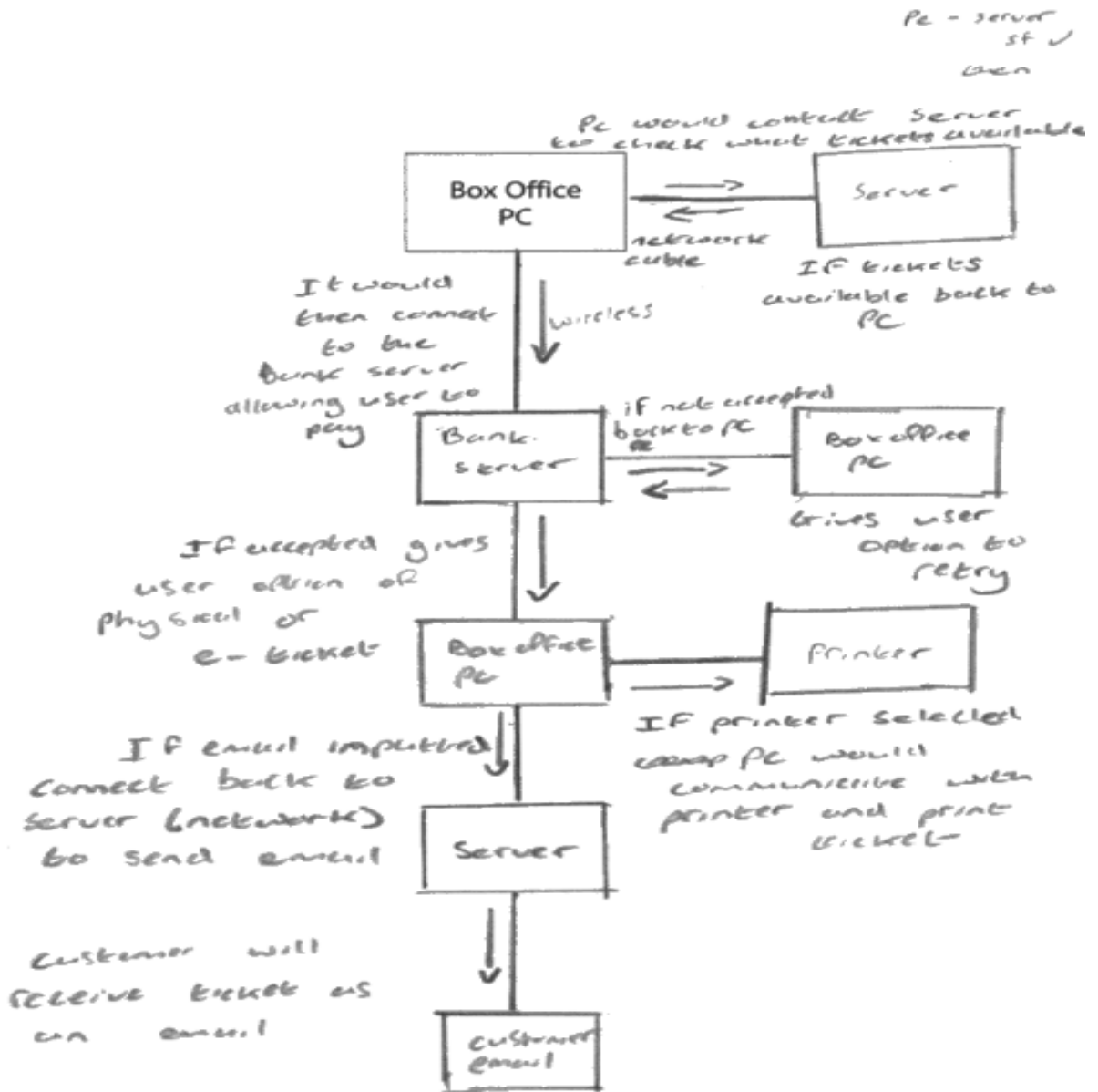
3 marks total

**Q1b**

Performance in this question was a little disappointing with most learners only able to achieve 3 marks out of a possible 6. This appears to have been an area of the specification where learners were less confident, and significant gaps in understanding of how to represent systems in the form of a diagram were evident.

It should be noted there are no set conventions required for diagrammatic representation of a system; it is only required that learners can demonstrate the key components and features as well as the processes and data flow.

**Q1b Example Response:**



## Lead Examiner Commentary

- Suitable user devices (e.g. customer device, printer, server etc) (1) mark awarded Note – not every possible device that could be used needed to be included. Devices selected just need to be appropriate for the task described in the scenario.
- Appropriate connection types (1) Mark awarded – Connections identified between systems (e.g. network cabling, wireless)
- Issuing e-ticket via email (1) Mark awarded – Included within annotations
- Issuing of physical ticket (1) Mark awarded - Included within annotations and printer section of diagram
- Sensible data flow direction between systems (1) Mark awarded single and bi-directional data flow has been shown and is appropriate
- Sensible actions/data/ information shared between system components (1) Mark awarded

6 marks total

### Q1c

Learner performance on this question was a little disappointing, with many learners not providing responses that were able to access any marks. Where learners did access marks, they typically only accessed 1 of 2 marks available. Where learners gained the mark, it was usually awarded for correctly identifying that data only travelled in one direction in a simplex connection, but they were often unable to expand this point further.

### Q1d

This question was generally answered well by learners with most learner able to access 2 out of the 3 marks available. Where learners didn't achieve full marks, this was often due repetition of points already given earlier in the response.

### Q1e

Learner performance in this question suggested that they typically had less of an understanding of the drawbacks of lossless compression than they did of the benefits. Many learners did not provide sufficient responses to gain marks here. Responses were often inaccurate or superficial, and where learners did access marks, they typically only gained 1 of the 2 marks available.

#### Q1e Example Response 1:

(e) Explain **one** drawback of using lossless compression.

(2)

The file size is very large depending on the quality of the video, meaning that there will be slower downloading and loading times, along with higher memory usage.

#### Lead Examiner Commentary

'file size is large' (1) 'Slower downloading' (1) – Suitable alternative wording for mark point 1 demonstrated

2 marks total

#### Q1e Example Response 2:

(e) Explain **one** drawback of using lossless compression.

(2)

As lossless compression needs to find and group repeated data, it can be very slow compared to lossy compression meaning that it may not be suitable for transmitting the video due to its slow speed.



## Lead Examiner Commentary

'it may not be suitable for transmitting the videos due to its slow speed' (1) – enough understanding was demonstrated to award the expansion point from Mark point 1

Although the first part of the response touches on data there is not enough understanding shown to award a mark

1-mark total

## Q1f

Responses from learners for this question were disappointing with most learners unable to provide a response that was able to gain marks. Where learners did gain marks, typically responses did not gain more than 1 out of a possible 3 marks. These responses usually demonstrated an understanding of the fact Forward Error Correction would automatically fix the errors without the need to request extra data. However, learners were often unable to expand their response beyond this or relate to the given context.

## Q1f Example Response:

- (f) The venue uses forward error correction (FEC) when transferring the video data between the camera, computer systems and the screen.

Explain why FEC is a more appropriate choice for error correction than automatic repeat request (ARQ) for live performances.

(3)

Forward Error Correction is more appropriate for live performances as it can fix errors straight away when (ARQ) would be slower, for live shows it is better to use as it gives a constant good stream with constant error correction.

(Total for Question 1 = 20 marks)

### Lead Examiner Commentary

'it can fix errors straight away' (1)

'ARQ would be slower' (1) Alternative wording which shows enough understanding to award for 'data would not be delayed'

'Gives a constant good stream' (1) – 'constant' here was considered just enough to award for 'syncing with the live performance' although the response could have been clearer/more precise

3 marks total

### Q2a

Learners were generally able to access at least 2 out of the possible 4 marks for this question. Typically, learners were able to identify methods of distributing a questionnaire, but often the expansions/expansions of their responses were quite weak.

For example, while many were able to identify 'email' as distribution method, they often did not explain how this would be used to send the questionnaire (e.g. 'as an attachment')

### Q2a Example Response:

**2** Luciano is a scientist. He studies animals and the environments they live in.

Luciano collects and processes large amounts of data. He is currently studying foxes in urban areas.

(a) Luciano would like to collect data on sightings of foxes by members of the public. He has created a questionnaire.

Describe **two** ways Luciano could use software to distribute this questionnaire.

(4)

1 He could make an online questionnaire and send the link to the people he wants to answer.

2 he could use E-mail and ~~send~~ ask the members to send him the answers to the questionnaire.

## **Lead Examiner Commentary**

### **Response 1:**

Online questionnaire (1) – It was considered there was enough to award against 'online survey'

Send the link (1)

### **Response 2:**

Use email (1)

There is not enough in the expansion to award the second mark – the expansion must show an understating of sending a file/attachment

3 marks total

### **Q2b**

Most learners were able to gain 2 out of a possible 4 marks for this response. Learners were generally aware of some benefits of cloud-based back-up, but their responses were often limited by poorly explained expansions, or a lack of specificity.

For example, learners often provided responses such as 'if the cloud server goes down you can't access data', which is not specific to a cloud based system, if any server broke it would stop you accessing your data.

### Q2b Example Response:

- (b) Luciano backs up the data he collects from the questionnaire to a cloud-based third-party provider.

Explain **two drawbacks** of using cloud-based backup.

(4)

Drawback 1

Cloud-based backup requires an internet access to get the things stored on the cloud, meaning you might not always be able to access it.

Drawback 2

If the cloud goes down for any reason, Luciano will not be able to access his files until the next time it comes back online.

### Lead Examiner Commentary

Drawback 1:

'requires internet access to get the things shared' (1) – enough to award for 'active data connection'

'might not always be able to access it (1)

Drawback 2:

'if the cloud goes down for any reason Luciano will not be able to access...' – no awardable content. Any system going down would prevent access.

Drawbacks must be drawbacks to using cloud storage.

### Q2c

Learner performance on this question was disappointing with many learners making a similar mistake which resulted in them failing to attain full marks.

Often learners failed to convert correctly, in that they only calculated 1 step of the conversion (bytes to kilobytes) and did not then convert from kilobytes to megabytes as required.

### Q2d

Most learners were able to achieve 2 out of a possible three marks for this question. Generally, learners correctly identified that the array contained a text formatted item, as n that this would not be able to be used in a calculation. Usually, learners were prevented for achieving 3 marks only because they did not expand their point sufficiently (i.e. adding an additional point) rather than incorrect understanding of the subject matter.

### Q2d Example Response:

(d) Luciano uses a computer program to calculate the total and average number of fox sightings. He uses the data from the arrays in **Figure 3**.

Explain why the program would produce an error.

(3)

The program would produce an error as the second <sup>col</sup> value in 'FoxesArea2' is not numerical meaning that it will cause an error in the program ~~and~~ <sup>so</sup> the ~~total~~ ~~and~~ ~~average~~ number of fox sightings will be incorrect.

### Lead Examiner Commentary

'Second value...is not numerical' (1)

'so the total and average...will be incorrect' (1) – there was enough here to award against 'cannot be used in a calculation.'

### Q2e

Responses for this question were generally quite poor, with most learners providing responses that did not move beyond mark band 1. Typically, responses were very superficial and did not explore validation much beyond type check (e.g. preventing 'ten' as in the previous question).

## Q2e Example Response 1:

(e) Analyse how Luciano could make use of validation when collecting and processing his data.

You should support your analysis with examples that are relevant to the scenario.

(6)

When collecting data with his questionnaire, Luciano could use validation checks based on location to determine if everyone who is answering the questionnaire is located in the area the study is taking place. Luciano could also use a validation check to check the post was spotted in a urban area instead of a rural one. When processing the data Luciano could use a validation check that checks if all information inputted is inputted correctly. For example all locations are spelled correctly and all number values are inputted as digits not as words. A validation check in the processing stage could also check if there are any repeats in data entered. For example if someone has entered the same data more than once, ~~you~~ Luciano can then disregard this repeated data.

(Total for Question 2 = 20 marks)

### Lead Examiner Commentary (Example 1)

The knowledge shown accurate and expressed in a detailed manner.

All the points made are relevant and to the scenario and supported by appropriate examples.

The analysis attempts to link points and links between suggested validations and the potential impacts are presented accurately.

The response best fits the descriptor for Mark band 3.

It is placed at the top of the mark band.

6 marks awarded.

## Q2e Example Response 2:

- (e) Analyse how Luciano could make use of validation when collecting and processing his data.

You should support your analysis with examples that are relevant to the scenario.

(6)

He could make a program that scans every value that is entered and checks that it fits ~~the~~ proper criteria. For example ~~for~~ the 2 lists:

- Has to be an integer value
- Cannot be a negative number
- Presence check (you have to type something)

He could also do the same for the other criteria, for example make sure that all data in the 'adult/pup' array, ~~is~~ entered is either ~~an~~ 'adult' or 'pup'. For example, if Luciano accidentally entered ~~an~~ 'pup' instead of ~~an~~ 'pup', the validation could stop him and identify the issue, then allowing him to re-enter the info. (Total for Question 2 = 20 marks)

### Lead Examiner Commentary (Example 2)

The knowledge shown is accurate and covers several different possible validation checks that could be used, but at times the points are a little superficial.

There are a number of points considered and examples are relevant to the scenario.

The analysis is only partially developed and there is limited links between points.

The response best fits the descriptor for Mark band 2.

It is placed at the top of the mark band.

4 marks awarded

### Q3a

Performance on this question was quite varied. While most learners were able to achieve some marks, typically for correctly identifying that cache is a high-speed memory location, and many also went on to include an additional point in their description, typically learner responses did not demonstrate sufficient technical understanding to access all the available marks.

This question was a 'describe how' style question which required learners to demonstrate technical knowledge of a process. Generally, while learners did show they understood what cache is, and gained some of the available marks, understanding of the role it plays and how it supports the operation of a computer system was much weaker.

### Q3a Example Response:

3 Anaya is a freelance software developer. She develops applications for personal computers and mobile devices as well as web-based solutions.

(a) Describe how the cache in the central processing unit (CPU) of Anaya's computer would aid performance.

(4)

Cache can perform (i.e. process data and instructions) at speeds closer to that of the CPU when compared to RAM. Cache would be used to process frequently used data and instructions (like commonly used applications) ~~essentially~~ essentially loading these applications quicker, meaning that there would be less time spent waiting for large applications to load.

### Lead Examiner Commentary

'Speeds closer to the CPU compared to RAM' (1) – Awarded against MKPT 1

'Process Frequently used instruction (1) – MKPT 5

'Less time waiting...to load' (1) – MKPT 7

3 marks awarded

This response could be further improved by demonstrating a deeper understanding of the technical processes/functions that cache supports, e.g. prefetching.



### Q3b

Performance on this question was quite pleasing and was a good example of general improvements in performance that have been seen across the paper, and in particular the extended questions.

Learners in general have demonstrate an improvement in terms of quality of answers in the extended questions (with some exceptions – see Q3c), with most learners providing answers that were of sufficient quality to be placed in mark band 2.

In this question learners typically were able to identify at least one means of increasing execution speed, typically 'overclocking', and were generally able to provide some expansion on this. There has been improvement on the quality of expansion in responses, with learners now typically providing some examples and/or explanation for the points they make, and this is great to see. However, learner's response often does not make sufficient use of application to the scenario, to fully explore the content of their answers and this often prevents learners form accessing the upper mark band.

### Q3b Example Response1:

(b) Anaya has noticed that her computer is running slowly.

Analyse how Anaya could increase the execution speed of her computer and the implications that this may have.

You should support your analysis with examples that are relevant to the scenario.

(6)

Anaya can increase her execution speeds on her computer by downloading the latest drivers for her hardware, this bring them up to date withe the latest software, she could use the "Task Manager" application to close the unnesesary applications she has running, this would free up memory on her GPU, CPU, RAM, etc. Another way she can increase performance is by overclocking her CPU, GPU, RAM, this increases the power to the componats and makes them perform better, one downside fo this is that once it is too much, the componats can be damaged.

### Lead Examiner Commentary (example 1)

Demonstrates some accurate knowledge and understanding. The response identifies some valid ways to increase performance although there are some minor inaccuracies e.g. save memory on CPU, overclock RAM.

Breaks the situation down into component parts and all of the points made are relevant but there is almost no linking to the scenario.

Displays a partially developed analysis – there is some linking e.g. using task manager – close some applications – free up memory. but the links are often superficial and not sustained.

The response best fits the mark band 2 descriptor.

It is placed at the top of the band.

4 marks awarded

### Q3b Example Response2:

Analaya could use overclocking to increase the speed of her computer. Overclocking is where the voltage of ~~the computer~~ <sup>the CPU</sup> is increased so that it can run at a much higher speed. Overclocking, however, can lead to over heating issues and even to reducing the life span of the CPU. Increasing / buying more RAM is another way that Analaya can increase her execution speeds as it will allow the RAM to store more temporary data and to do it quicker. However, this can be very expensive. Using a different storage medium such as an SSD can greatly improve the execution speeds of Analaya's computer. By using an SSD, Analaya's computer will be greatly sped up as they prioritise and are built for speed, despite increasing speeds. ~~As~~ SSDs are very expensive and have a finite amount of reads meaning that they will eventually stop working. SSDs also have very ~~low~~ <sup>low</sup> storage compared to HDDs.

### **Lead Examiner Commentary (example 2)**

Demonstrates accurate and thorough/detailed knowledge and understanding.

Breaks the situation down into component parts and most of the points made are relevant to the context in the question, but there is little/no attempt to contextualise the response.

Displays a well-developed and logical analysis which clearly considers interrelationships or linkages in a sustained manner.

The response best fits the mark band 3 descriptor.

It is placed at the bottom of the band due to the lack of contextual examples.

5 marks awarded

### Q3c

This question was the least well answered of the extended questions. Many learners either failed to provide a response or provided responses that were quite superficial.

While some credit was given, often learner responses did not move beyond a list of definitions of some protocols that could have been used, with very little expansion as to how they would have been used in the given scenario/for the given tasks.

### Q3c Example Response:

Discuss the data transmission protocols that Anaya could use when completing her daily tasks.

You should support your discussion with examples of specific protocols.

(8)

TCP (Transmission Control Protocol) is a transmission protocol that Anaya can use when completing tasks and is what allows ~~data~~ data to be communicated across a network and the WEB. ~~FTP~~ TCP can be used ~~there~~ by Anaya to allow her to communicate with clients and to ~~complete~~ ~~basic~~ ~~tasks~~ such as ~~writing~~ ~~program~~ <sup>Files</sup> code. FTP, File Transfer Protocol is another transmission protocol that Anaya can use to complete her daily tasks and is what allows her, over a network to save and manage her files. The use of FTP will also allow Anaya to ~~transfer~~ transfer her files and will allow them to be sent to web based servers. Network/web transmission protocols can also be used by Anaya to allow her to complete daily tasks such as maintaining

and building e-commerce sites. ~~both~~  
~~will allow her~~ web transfer protocol  
will allow ~~Anna~~ to transfer these sites  
across the web and to her clients.

(Total for Question 3 = 18 marks)

### Lead Examiner Commentary

Demonstrates some accurate knowledge and understanding, a number of protocols are covered, and their function explained correctly.

The points made are relevant to the context in the question, there is an attempt to reference tasks in the context.

Displays a partially developed discussion, although there is some correct linking of protocols and tasks the discussion of HOW these are implemented is limited to mostly definitions of their function and not specific tasks e.g. online code IDEs, emailing, remote support etc.

The response partially meets the descriptors for mark band 2.

It is placed in the middle of the band.

5 marks awarded

### Q4a

Learner performance on this question continued to demonstrate the general improvements in the responses to extended questions. Typically, learners were able to provide more coherent, linked discussions of points and provided improved use of examples to support their points, although the use of examples and contextualisation is not sustained. It is however a very positive sign, and centres should be congratulated on the improvements being demonstrated.

In this question, specifically, while most learners were able to demonstrate understanding of software that is used to protect data, and provide some expansions, relation to the scenario, in particular the fact that the company would have to handle personal/sensitive data was not fully utilised.

#### Q4a Example Response:

Lucy can use encryption <sup>function</sup> on her OS (Windows) to encrypt her hard disk and her files so if someone steals her hard disk ~~it would~~ the data would be encrypted so it would be useless.\* (10)

Lucy should have a fire wall set up so which would protect her from malware ~~on the internet~~ If she goes on the ~~internet~~ <sup>internet</sup> she would be safe from malware trying to infect her device and give ask access / send data to from her device.

She should also set up a anti virus program to check ~~and~~ stop and destroy malware on her device. If malware had infected her ~~top~~ device when she was online the anti virus program

would find and compromise the file it has infected.

She should also use a 'token' which is a physical device which would need to be used when signing on her device, including her password otherwise. This makes sure even if someone has her password they would need ~~another~~ the token to gain access to her device.

She should also back her data up using cloud - fuse so if she does lose her data on her device she has it somewhere else safe and secure.

\* If Lucy were to leave her <sup>device</sup> ~~laptop~~ in a coffee shop whilst unlocked then if someone unauthorised tries to access her files they ~~to~~ wouldn't be able to since you would need a password to ~~break~~ <sup>Key</sup> the encryption <sup>decode</sup>.

### Lead Examiner Commentary

A wide range of security measures are covered, and the information is accurate. - fully meets trait 1 in band 3.

The points are relevant but there is minimal contextualisation. - mostly meets trait 2 in band 2.

There is only limited discussion (points are partially expanded) but a wide range of points is considered. Mostly meets trait 3 in band 2.

Using best fit the response is placed in mark band 2.

7 marks awarded

### Q4b

This question was generally very well answered by learners and demonstrated a marked improvement in the responses to the evaluate command verb.

Typically, learners were able to provide coherent exploration of benefits and drawbacks, and were able to reach a reasoned conclusion, which is a significant step forward from previous series where conclusions were often lacking.

As with the other extend questions learners have shown a much-improved ability to expand the points they make, but here they still did not make sufficient use of the given context to push into the higher marks. That said, most learners were able to provide responses suitable for mark band 2 and with the average mark for the question being 6 out of 12 marks, which is very encouraging.

### Q4b Example Response:

- (b) Lucy wants to set up a server to help run and manage her software and data. She has decided to use a virtual cloud-based server instead of a physical server. Evaluate her decision to use a virtual cloud-based server.

Your evaluation should:

- consider the benefits and drawbacks of each option
- reach a supported conclusion about Lucy's decision.

(12)

Using a cloud based server has benefits and problems along with using physical servers which can be decided with the persons need for that server. Lucy is a travel agent making herself open to be in many places a week instead of an individually controlled environment, her choice of cloud based server supports this as a cloud based server can be



accessed anywhere for her needs so she can have all her data no matter where she is, ~~also~~ compared to a physical server in which you need to be physically connected to meaning only being able to access it when in the stored location which is not appropriate for her job. however a cloud based server requires access to the internet to enter access and change which could cause problems if she can't get connection. which is not the case for a physical server which is always open. along with this a cloud based server is smaller in size compared to a physical server making her stored data have a problem once she does not have enough space. on the other hand a cloud based server is cheaper to purchase and run over time ~~and~~ making it better in a business sense. and finally ~~the~~ the physical space taken up by a server is large however cloud servers do not take up any space.

therefore in total the cloud based server is an overall better option for lucy's job and need for it as it is portable and accessible almost everywhere and does not take up space she will need for other jobs she needs to do.

### **Lead Examiner Commentary**

Accurate technical vocabulary is used to support arguments, but these are not always explored in sufficient detail in relation to the scenario.

There is some attempt to link points made to the context, but this isn't always of sufficient detail.

There is some evaluation which considers some different competing points, although not always in detail. There is an attempt at a supported conclusion.

The response meets the descriptors for mark band 2.

8 marks awarded

## Summary

Overall learners' performance showed improvement in quality and structure of response, compared to previous series. Improvements in this series were seen both in terms of level of knowledge and examination preparation.

Based on performance in this examination series, learners are offered this advice to help continue demonstrating improvement:

- Continue to develop understanding of key terminology used in the unit so that you are able to access the context of the question. In particular, the more technical topics.
- Improve the quality of technical descriptions, by ensuring you have a good depth of understanding of how technologies work to improve response to 'describe how...' type questions
- Further support on the requirements of command verbs can be found in the specification and in training materials published on the Pearson website.
- Ensure that when providing answers/information your response is applied to the given context, particularly in extended responses.
- For shorter response questions (5 marks or less), make note of the number of marks available this will help you identify the number of points you need to make. For example, a 4 mark 'Explain one...' style question would need to make at least four linked statements, three of which expand/exemplify understating of a single point.
- When producing extended writing responses (6 marks or more) ensure you consider a range of points, each of which should be expanded or supported with examples and applied to the given context.
- Use the sample assessment materials, previous papers and sample marked learner work, when preparing for the examination. This will allow you to become more familiar with the style of the paper and the way in which you should respond to different types of questions.
- Make use of the 'Technology Update' which is published on the BTEC website ready for the start of each academic year. This document defines the scope of the technologies that may be used in examinations such as defining the range of 'common protocols', 'Input devices' 'utility software' etc. and should be used in conjunction with the specification when planning and delivering content.



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