



Examiners' Report/
Lead Examiner Feedback

2015

BTEC Level 1/Level 2 Firsts in
Information and Creative Technology

Unit 1: The Online World (20560_E08)

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Summer 2015
Publications Code
BF042973

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Introduction

This report has been written by the Lead Examiner of Unit 1: The Online World. It is designed to help you understand how learners performed on this test. The report provides an analysis of learner responses for each question. You will also find example learner responses, with commentary.

The external assessment for this unit is an onscreen, on-demand test. A number of tests are live within the 'test bank' at any one time and learners are allocated tests randomly. It should be noted that this report refers to the first test retired from the live 'test bank'. Whilst not all learners will have sat this particular test, the Lead Examiner's comments provide valuable feedback, relevant across different tests for this unit.

We hope this will help you to prepare learners for the external assessment for this unit.

Grade Boundaries

Introducing external assessment

The new suite of 'next generation' NOF BTECs now include an element of external assessment. This external assessment may be a timetabled paper-based examination, an onscreen, on-demand test or a set task conducted under controlled conditions.

What is a grade boundary?

A grade boundary is where we 'set' the level of achievement required to obtain a certain grade for the externally assessed unit. We set grade boundaries for each grade (Distinction, Merit, Pass and Level 1 fallback).

Setting grade boundaries

When we set grade boundaries, we look at the performance of every learner who took the assessment. When we can see the full picture of performance, our experts are then able to decide where best to place the grade boundaries – this means that they decide what the lowest possible mark should be for a particular grade.

When our experts set the grade boundaries, they make sure that learners receive grades which reflect their ability. We have awarded grade boundaries for the first time for our new next generation BTECs, so this means that a learner who receives a 'Distinction' grade on a particular test will have similar ability to a learner who has received a 'Distinction' grade on another onscreen test. Awarding grade boundaries is conducted to ensure learners achieve the grade they deserve to achieve, irrespective of variation in the external assessment.

Variations in externally assessments

Each test we set asks different questions and may assess different parts of the unit content outlined in the specification. It would be unfair to learners if we set the same grade boundaries for each test, because then it wouldn't take into account that a test might be slightly easier or more difficult than any other.

The grade boundaries for this onscreen, on-demand test to be retired from the test bank are shown below.

Grade	Unclassified	Level 1 Pass	Level 2		
			Pass	Merit	Distinction
Boundary Mark	0	11	21	31	41

General comments

This test is the fourth external assessment to be retired from the live 'test bank'. Following a pilot opportunity for learners in March 2013, onscreen assessment for this unit has been available on-demand since June 2013.

Most learners were able to respond effectively to the questions early on in this test. However, some of the later questions were designed to be more challenging and as such, fewer correct responses were evident.

The most successful learners scored highly across the whole test including the differential questions where they could demonstrate a depth of knowledge.

The less successful learners tended to give minimal responses and often only answered multiple choice questions. It appeared many learners were not confident in understanding the requirements of the command verbs in open response questions, but were able to use the different mechanisms available to answer multiple choice questions.

One such example was the way in which learners responded to questions which used 'explain' as a command word (explain one advantage/disadvantage etc). Centres are encouraged to refer to the Mark Scheme for this onscreen test for guidance in terms of mark allocation for questions of this type. The first mark is awarded for identification of the advantage/disadvantage, with the second mark awarded for the expansion as to why it is an advantage/disadvantage.

When responding to such questions, learners tended to either include one advantage without the expansion or two advantages instead of expanding on one – only one mark could be awarded where this occurred.

It was encouraging to see, for this test, that learners used their own experiences to provide responses. As is encouraged in the Delivery Guide for this unit, learners' reflection on their 'online life' can be beneficial.

It is important to stress that learners need to not only understand what technologies do, but also how they work by providing examples, where appropriate, to explain.

From having practical experience of these aspects of the unit, learners will be better placed to apply their knowledge and understanding to the applied situations in the assessment and gain credit for their responses.

The responses to open response questions were on occasion rather minimal and it was clear that a number of learners did not make full use of the stimulus material provided in the question. The emphasis in this assessment is on learners' application of their knowledge to a variety of practical ICT-related situations. Stronger responses to extended response questions should demonstrate application along with theory. It is important for learners to have practice in doing this in their preparation for the assessment. Learners that were able to access higher marks

for these questions were able to apply their knowledge and understanding to the stimulus and provide realistic and appropriate suggestions.

As Unit 1 is a vocational ICT-related unit, the external assessment seeks to put the learners in applied situations and ask them to respond to these. It is essential that centres stress to learners the need to read the stimulus information carefully before they answer questions, and be prepared to use that information within their responses.

Learners appeared to manage their time effectively and appeared to be able to complete the assessment in the time available.

Question 1

**Targeted Specification Area: Learning Aim B.2
Worldwide Web**

The majority of learners understood that HTTP meant HyperText Transfer Protocol.

Question 2

**Targeted Specification Area: Learning Aim A.1
Online services**

Most learners selected the two correct types of real time communication that used speech and live video from the list of 5 options. VoIP and Web conferencing were the two correct options.

Question 3

**Targeted Specification Area: Learning Aim A.1
Online services**

This question required learners to have an understanding of Virtual Learning Environments (VLEs). Most learners answered this question correctly. This could have been due to their personal experiences of using VLEs.

3a

Most learners achieved the mark for providing one piece of information a student would need to enter to log in to the VLE.

3b

Most learners achieved the mark for providing one benefit to a teacher of using a VLE. The most popular response was monitoring learners' progress. However, in some instances learners tended to forget the question was aimed at the teacher and provided responses that were more suited to the students' use of the VLE.

Question 4

**Targeted Specification Area: Learning Aim C.1
Possible threats to data**

4a

Most learners understood that anti-virus software could be used to protect stored data.

4b

Most learners identified that encryption was one way data could be protected during transmission.

Question 5

**Targeted Specification Area: Learning Aim B.3
Email**

This question required learners to label a diagram showing the protocols for incoming and outgoing mail. Most learners identified POP3 and SMTP as the correct labels.

Question 6

**Targeted Specification Area: Learning Aim B.1
The internet**

Learners were provided with one service offered by an Internet Service Provider (ISP). The service provided was that it gives customers access to the internet. Learners were required to identify two other services offered by an ISP. Most learners identified the two correct services.

Question 7

**Targeted Specification Area: Learning Aim B.4
Data exchange**

This question was made up of part (a) and part (b). Both required learners to provide two responses for each part to gain the total of four marks.

7a

Most learners gave two wireless transmission methods. The most popular responses were microwave and satellite.

7b

Learners were required to give two drawbacks of using wireless transmission. The most popular responses were that users had to be in range of the router, speed could be slower, physical objects could block the signal and could be less secure. There was a range of responses given for this question and it was not uncommon to award the full 4 marks.

Question 8

**Targeted Specification Area: Learning Aim C.1
Possible threats to data**

Learners were provided with an image of a shopping website. They had to identify the part of the website that showed the site was secure. Most learners identified the image of the padlock with https as the correct option.

Question 9

**Targeted Specification Area: Learning Aim B.2
Worldwide web**

Learners were provided with some html code. There were two parts to the code (A and B) and learners needed to identify what the two part of code did. Most learners understood what both parts did but others provided responses to do with navigation.

Question 10

**Targeted Specification Area: Learning Aim A.3
Online communication**

Most learners achieved two marks for correctly identifying wiki and blog as the two examples of social media. This question may have been answered correctly by most learners due their own experiences of using social media at home.

Question 11

**Targeted Specification Area: Learning Aim B.4
Data exchange**

Learners were required to identify two components of a wireless network. Most learners correctly identified router and access point.

Question 12

**Targeted Specification Area: Learning Aim B.1
The internet**

Four marks were available for this question. Two roles needed to be explained to gain full marks. Each role could be awarded two marks; one for the identification of the role, the second for the expansion of that identification.

This question was generally not well answered. Some candidates gained marks for the identification but few gained the second mark for the expansion.

(a) This required learners to describe the role Transmission Control Protocol (TCP) plays in communicating data.

Some learners mentioned the connection to the IP address, others mentioned the breaking down of data into individual packets but few achieved any expansion marks.

(b) This required learners to describe the role the Internet Protocol (IP) plays in communicating data.

Again, some learners achieved marks for mentioning the address data of each packet but few expansion marks were awarded.

Learners must be encouraged to consider the use of key words such as describe or explain and understand that one mark is awarded for the identification and the second is for the expansion.

Question 13

**Targeted Specification Area: Learning Aim B.1
The internet**

Most learners identified NAP and PoP as the two missing components of the internet infrastructure diagram. Some learners chose the two correct components but got them the wrong way round.

Question 14

**Targeted Specification Area: Learning Aim A.2
Online documents**

Four marks were available for this question. Two reasons for giving read/write file permissions were needed and explained to gain full marks. One mark was awarded for the 'reason', the second for the expansion of that same 'reason'.

Most learners tended to achieve two marks for their responses to this question. These marks were generally awarded for providing two reasons for giving read/write permissions but learners tended not to provide an explanation of why this was done.

Some learners did, however, achieve 3 or 4 marks by describing one or both of the reasons identified.

The most popular responses were editing content and making comments.

This was another example where learners did not achieve the expansion marks. Learners need to be reminded of the technique required to achieve these marks.

Question 15

**Targeted Specification Area: Learning Aim B.4
Data exchange**

This question required learners to understand how packet switching was used to transfer data over a wide area network and to provide two benefits of using it.

Most learners understood that data is split into smaller packets but few were able to expand on this and show how this was a benefit. However, some learners understood that only a damaged packet needs to be resent (rather than the entire

file) but failure to comment how this was a benefit (errors localised – or wording to mean the same thing) resulted in the expansion mark not being awarded.

This is another example of where exam technique needs to be improved to enable learners to achieve the second expansion mark.

Question 16

**Targeted Specification Area: Learning Aim A.2
Online documents**

This question required learners to understand the advantages of using online software to work collaboratively on documents.

Examples of responses from learners were that work was stored in a central location, users would be using the same software version, users working on the files at the same time, changes are in real time, not having to install software. However, as in previous questions, lack of exam technique resulted in the expansion marks not being awarded for many candidates.

The question implied that by using online software, users have to be connected to the internet. Therefore, where learners provided the response 'can be used anywhere there is internet connection' this was not awarded any marks.

Question 17

**Targeted Specification Area: Learning Aim B.4
Data exchange**

This question required learners to explain how the data in a packet helps it to reach its destination.

Few learners achieved marks for this question but where marks were awarded they tended to be for mentioning that the packet contained the destination/IP address. However, few learners understood any more than this and the second mark was not awarded.

Question 18

**Targeted Specification Area: Learning Aim C.1
Possible threats to data**

Most learners achieved marks for this question and very few gained no marks. Extended writing questions are designed to assess learners' ability to analyse, evaluate, make reasoned judgments and present conclusions.

Many learners made a good number of individual points without expansion and so restricted themselves to Mark Band 1.

Overall, quality of written communication was better than previous tests. There was some evidence from some learners of the use of connectives to help achieve a logical flow to their discussion, retaining focus and supporting better organisation of their response. This is a useful writing skill and should be practiced.

This question required learners to discuss ways in which current legislation controls how personal data can be used and be protected by the activity centre mentioned in the stem.

There are three mark bands for this question up to a maximum mark of eight marks. Learner responses generally tended to be in the lower two mark bands with some achieving marks in Mark Band 3.

The response shown was awarded marks at the bottom of Mark Band 3. The learner has explained a few key points which were relevant with a clear link to the situation in the question. For the full 8 marks, the learner should have expanded on one or two areas of discussion to meet the requirement of a few key points explained in depth.

The learner concentrated on the security and use of the data.

One way in which legislation controls how personal data can be used is that it can only be shared or used with the owners permission. This means that a company cannot give out personal details about you unless you have agreed to this.

A way in which legislation protects the data is through encryption, where personal details are coded to look like they don't make sense. This is a great way of protecting data, because unless you know the algorithm of the encryption, you won't be able to tell what the data says.

Another way legislation controls how personal data can be used is by only allowing companies to view certain information about their customers. This means that corrupt people inside of the company cannot sell personal information.

A second way in which current legislation protects the data at the activity centre is by requiring the company to make permissions and password protections on the information. This means that someone new at the company cannot just view all of the personal information unless they have the correct permission and know the passwords. This gives some extra security to the information.

A final way in which the current legislation protects data is by enforcing 'firewalls'. A firewall is a peice of software that stops external devices from accessing the computer or storage device. This helps to stop hackers from accessing the personal information.

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BF042973

Summer 2015

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