

# Retired Onscreen Test Version 1 Unit 2: Technology Systems

BTEC Firsts Level 1/2 Information and Creative Technology

# Introduction



This retired onscreen test has been made available to centres to help you prepare your learners for their BTEC Firsts Level 1/2 external assessments.

We recommend that you use this test as a written assessment which is then either teacher marked or peer assessed.

This retired test should be used in conjunction with the Mark Scheme and the Lead Examiner's Report to clearly identify the assessment requirements. These documents are available at:

<https://qualifications.pearson.com/en/qualifications/btec-firsts/information-and-creative-technology-2012-nqf.coursematerials.html#filterQuery=Pearson-UK:Category%2FExternal-assessments>

# Retired Test Development



We are currently working towards a simulation test where mock onscreen tests can be taken in a real environment. However as this is being developed, we have temporarily created these PowerPoint based tests to support you.

## **How can I view the videos in the test?**

This document has been produced using screen captures of the retired onscreen test. As such, videos are not available in this PowerPoint document. This document should be used in conjunction with the retired onscreen test which is available on the

website:<https://qualifications.pearson.com/en/qualifications/btec-firsts/information-and-creative-technology-2012-nqf.coursematerials.html#filterQuery=Pearson-UK:Category%2FExternal-assessments>

## **How can I see the drop down menus in the test?**

Where a drop down menu may obscure information the learner requires to answer a question, we have instead supplied a text box containing the options from the drop down menu. To view drop down menus please use the retired onscreen test.

# Question 1/18

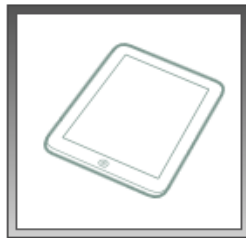
The images show some computer devices.

Identify the device that is multi-functional. (1)

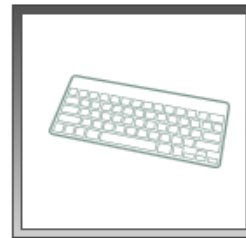
Click on the correct image.



Mouse



Tablet computer



Keyboard



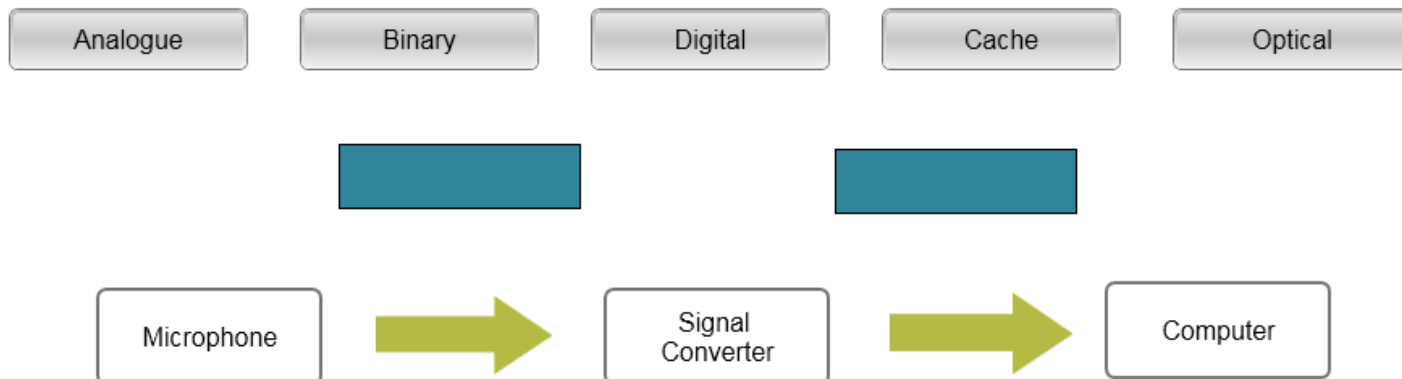
Monitor

# Question 2/18

Angela wants to add a voice-over to a presentation.  
The diagram shows the input process she will use.

Complete the diagram by labelling the signal types. (2)

Drag and drop the correct labels onto the diagram.



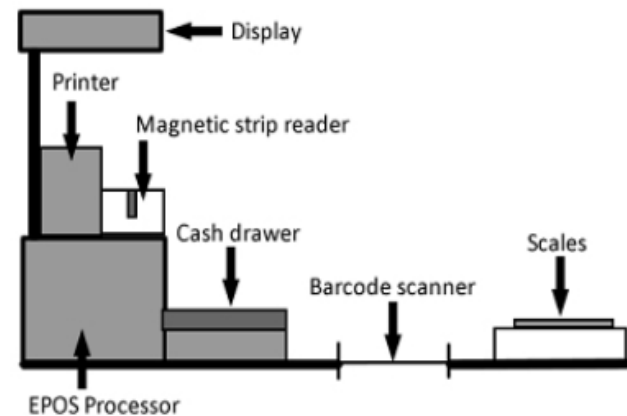
# Question 3/18

Supermarkets use a computer system called EPOS (Electronic point of sale).  
Supermarket checkouts are called EPOS terminals.

This is a diagram of an EPOS terminal.  
A barcode scanner is used to input product codes.

Identify **two** other input devices  
that are part of the system. (2)

Type your answers in the boxes.



# Question 4/18

A sales manager enters details of sales for each of his staff at the end of each month. The table shows the information for one member of staff.

(a) Complete the table by selecting the correct data type. (1)

Select your answer from the drop down menu.

Item	Value	Data Type
Value of sales (£)	4322.89	Real
Number of sales	210	Please select... ▾

(b) Identify the data structure that could be used to store the monthly sales figures. (1)

Click on **one** of the boxes.

Boolean

Field

Variable

Array



## Question 5/18

The Central Processing Unit (CPU) is mounted on a computer's motherboard.

Identify **two** other components mounted on the motherboard. (2)

Click on the **two** correct components.

Memory

DVD drive

Hard disk

Video card

Power supply

# Question 6/18



Flash memory can be used to hold computer data.

(a) State **two** other types of computer memory. (2)

Type your answers in the boxes.

Flash memory is fast and durable.

(b) Give **one** other characteristic of flash memory. (1)

Type your answer in the box.

# Question 7/18



A travel agency wants to upgrade the operating system on its computer network. The upgrade will involve the purchase of new software licences.

(a) Give **one** other cost to the business of upgrading its operating system. (1)

Type your answer in the box.

In addition to cost, there are other factors that the business manager should consider before going ahead with the upgrade.

(b) Explain **one** other factor the business manager should consider. (2)

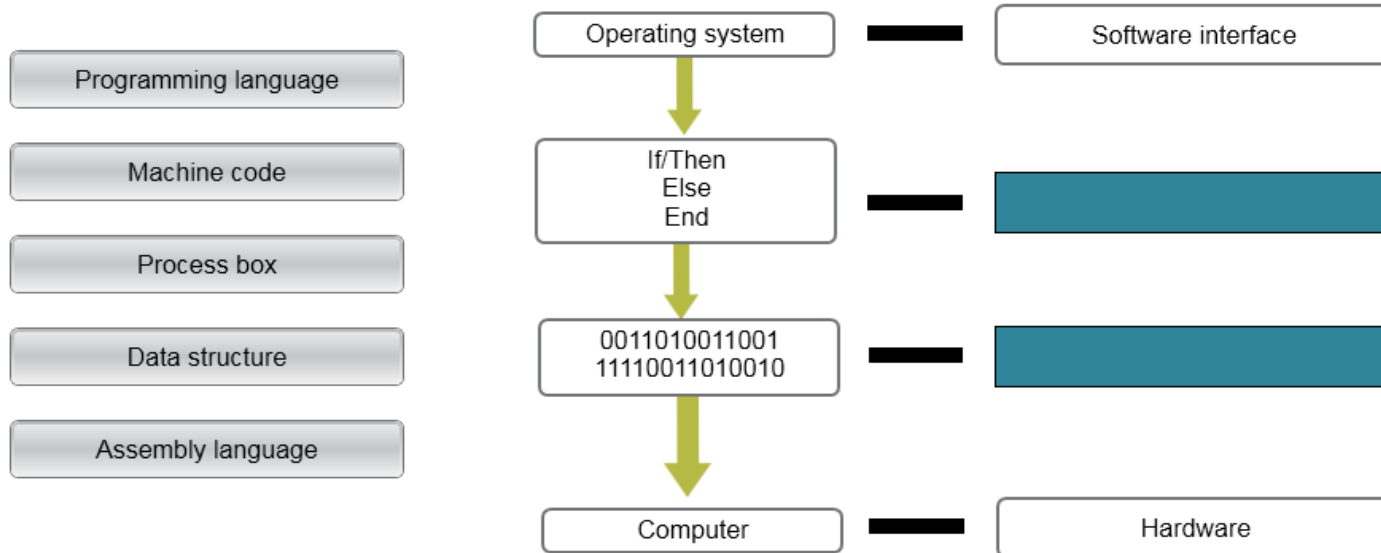
Type your answer in the box.

# Question 8/18

The diagram shows the hierarchical structure of a computer system.

Complete the diagram by adding the missing labels. (2)

Drag and drop the correct labels onto the diagram.



# Question 9/18

Productivity applications allow users to carry out tasks using a computer.

(a) Identify the activity that a desktop publishing package would be most appropriate for. (1)

Click on **one** of the boxes.

Creating an animation

Producing a magazine advert

Creating a spreadsheet

Storing customer details

(b) Identify **one** benefit of using a suite of productivity applications. (1)

Click on **one** of the boxes.

The user interface will be similar between applications

The suite will allow remote access to documents

The individual applications will load faster

The software will protect user passwords

## Question 10/18



Anthony enjoys playing games saved on his smartphone. He has noticed that loading screens appear more frequently on his phone than on his friend's phone, even when they are playing the same game. His friend's phone has a higher memory specification.

Explain **one** reason why a higher memory specification would improve Anthony's game playing experience. (2)

Type your answer in the box.

# Question 11/18



Paul is choosing a new laptop for his graphic design business. He chooses a laptop with a quad core processor.

(a) Give **one** reason for choosing a processor with more than one core. (1)

Type your answer in the box.

(b) Identify **two** other features of the laptop's CPU that will affect performance. (2)

Type your answers in the boxes.

# Question 12/18

(a) Identify the base ten number that is represented by 00000101. (1)

Click on **one** of the boxes.

2

3

4

5

(b) Identify the binary form of the number 7. (1)

Click on **one** of the boxes.

00000111

01000100

11101000

00000011

(c) Identify the amount of memory needed to store an 8 digit binary number. (1)

Click on **one** of the boxes.

8 bits

8 bytes

8 kilobits

8 kilobytes



## Question 13/18



Andrew has decided to build his own desktop computer. He is considering including both a 2TB hard disk drive (HDD) and a 40GB solid state drive (SSD).

Explain **two** advantages of including both types of disk drive. (4)

Type your answer in the box.

## Question 14/18



An important function of a computer's operating system is the management of hardware devices. This is achieved with the use of special programs called device drivers.

Explain **one** way device drivers assist in the management of peripheral hardware devices. (2)

Type your answer in the box.

# Question 15/18



(a) Explain **one** purpose of a declaration statement in a high level programming language. (2)

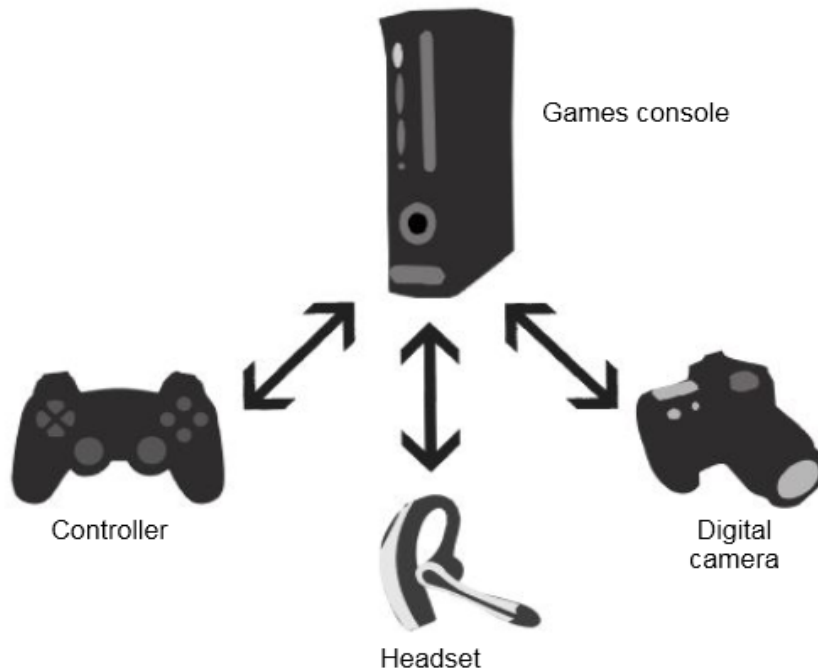
Type your answer in the box.

(b) Explain **one** reason why programmers use sub-routines. (2)

Type your answer in the box.

# Question 16/18

The diagram shows a computer network.



(a) Identify the type of network shown. (1)

Type your answer in the box.

A Bluetooth connection is used between the headset and games console. One of the advantages of Bluetooth connections is that they are wireless.

(b) Explain **one** other advantage of using a Bluetooth connection. (2)

Type your answer in the box.

## Question 17/18



Computer programs can be written in either a high-level or a low-level language.

One advantage of using a high-level language is that pre-written library routines can be included.

Explain **one** reason why this is an advantage of using a high-level language. (2)

Type your answer in the box.

## Question 18/18



James owns a successful kitchen design and installation business.  
The business has six designers, an administrator and two buyers.

All staff currently use stand-alone desktop computers.  
James is considering networking the computers in his showroom and administration office.

Discuss the impact on the business and its staff of networking the computers. (8)

Type your answer in the box.