

Retired Onscreen Test Version 9 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

Identify **one** cabled method of transferring data between devices. (1)

Click on **one** of the boxes

WiFi

Bluetooth

Coaxial

Infrared

Question 2/18



Identify **two** productivity applications. (2)

Click on the **two** correct productivity applications.

Firewall

Web-authoring

Anti-virus

Defragmenter

Multimedia

Question 3/18



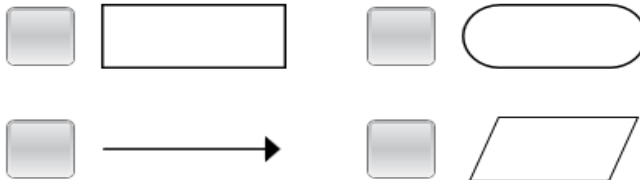
Identify **two** devices that are used to capture data for automated systems. (2)

Type your answer in the box.

Question 4/18

(a) Identify the flowchart symbol used to show a process. (1)

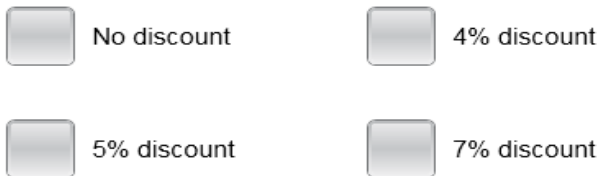
Click on **one** of the boxes.



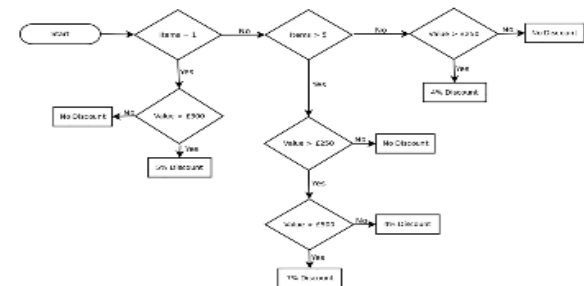
The flowchart shows how a system applies discounts to orders.

(b) Identify the discount applied to an order of 7 items with a value of £359. (1)

Click on **one** of the boxes.



Right click on image to enlarge



Question 5/18

Identify **two** types of memory used in computers. (2)

Click on the **two** correct types of memory.

CAM

RAM

WAN

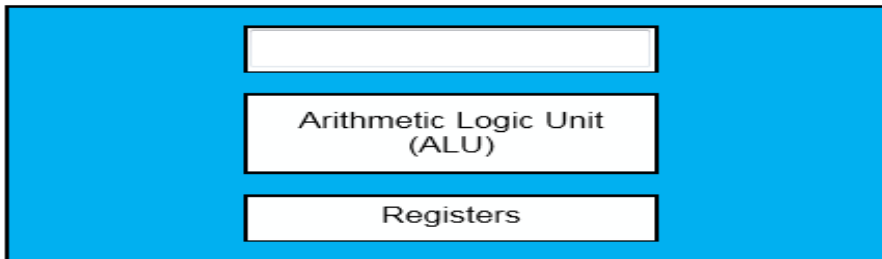
ROM

CAD

Question 6/18

(a) Label the component missing from the CPU diagram. (1)

Type your answer in the box.



(b) Give the name of the printed circuit board that holds the main components of a computer. (1)

Type your answer in the box.

(c) State **one** role of the ALU. (1)

Type your answer in the box.

Question 7/18



(a) State the term for a section of code used to perform a frequently executed task in a high-level programming language. (1)

Type your answer in the box.

(b) Explain **one** characteristic of a high-level programming language. (2)

Type your answer in the box.

Question 8/18

The image shows some code written in a high-level programming language.

(a) Identify an example of a String used in image 1. (1)

Click on the part of the image that shows a String.

(b) Identify an example of a Boolean used in image 2. (1)

Click on the part of the diagram that shows a Boolean.

Image 1

```
1 #checks if an entered number is in a stored list
2
3 storedNumbers = [3,6,4,67,9,2]
4
5 def compareNumber():
6     global storedNumbers
7     global guessNumber
8     for i in storedNumbers:
9         if guessNumber == i:
10            print(1)
11        else:
12            print(False)
13
14 print('Please type in a number')
15 guessNumber = int(input())
16 compareNumber()
17
```

Image 2

```
1 import random
2
3 secretNumber = random.randint(0,10)
4
5 print('Can you guess the secret number?')
6 print('Enter a number between 0 and 10')
7 guess = int(input())
8
9 if guess == secretNumber:
10     print(True)
11 else:
12     print(0)
13
```

Question 9/18



Computer data can be measured in units called bytes.

Complete the sentences about computer data. (2)

Select the correct words from the drop-down menus to complete the sentences.

Data in a byte is stored in format.

A byte is bits in length.

Question 10/18



Explain **one** reason why it is important to synchronise data on devices forming a Personal Area Network (PAN). (2)

Type your answer in the box.

Question 11/18



Transferring data over a wired network is usually faster than transferring data over a wireless network.

Identify **three** other benefits of transferring data over a wired network. (3)

Type your answer in the box.

Question 12/18



Identify **three** security measures used in technology systems. (3)

Click on the **three** correct security measures.

Networks

Passwords

Communication

Authentication

User support

Levels of access

Actuators

Question 13/18



Many mobile devices use System-on-a-Chip (SoC).

Explain how **two** features of SoC make it suitable for use in mobile devices. (4)

Type your answer in the box.

Question 14/18



Explain the role of the address bus. (2)

Type your answer in the box.

Question 15/18



The clock speed of a central processing unit (CPU) affects its performance.

Explain **two** other features of a CPU that affect its performance. (4)

Type your answer in the box.

Question 16/18



One element of a Graphical User Interface (GUI) is a menu.

(a) Identify **one** other element of a GUI. (1)

Type your answer in the box.

Another type of user interface is a command-line interface.

(b) Explain **one** benefit of using a command-line interface. (2)

Type your answer in the box.

Question 17/18



The use of ICT by companies can have a significant impact on the environment.

Explain **one** way companies can reduce the impact of their computer use on the environment. (2)

Type your answer in the box.

Question 18/18



Mobile devices have specially designed operating systems.

Analyse how the features of these operating systems make them suitable for mobile devices. (8)

Type your answer in the box.