

Surname	Centre Number	Candidate Number
Other Names		0



GCSE

178/02

**INFORMATION AND COMMUNICATION
TECHNOLOGY**

PAPER 2

Foundation Tier

P.M. THURSDAY, 16 June 2011

1 hour

Examiner's Use Only		
Question	Maximum Mark	Mark Awarded
1	6	
2	4	
3	4	
4	4	
5	7	
6	6	
7	4	
8	4	
9	5	
10	4	
11	5	
12	7	
Total Mark	60	

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen. Do not use pencil or gel pen. Do not use correction fluid.

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer **all** questions.

Write your answers in the spaces provided in this booklet.

If you run out of space in the question-and-answer booklet you may use continuation sheets. Number the questions clearly and put your sheets in this question-and-answer booklet.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part-question.



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Answer all questions

1. Place a tick (✓) in the correct box to show whether each device is used for *Input* or *Output*.

[6]

Device	Input	Output
Monitor	1 <input type="checkbox"/>	7 <input type="checkbox"/>
Microphone	2 <input type="checkbox"/>	8 <input type="checkbox"/>
Mouse	3 <input type="checkbox"/>	9 <input type="checkbox"/>
Joystick	4 <input type="checkbox"/>	10 <input type="checkbox"/>
Printer	5 <input type="checkbox"/>	11 <input type="checkbox"/>
Keyboard	6 <input type="checkbox"/>	12 <input type="checkbox"/>

6

2. Different types of storage can be used with computers.

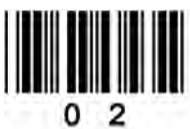
[4]



Name **four** different types of storage device.

- (i)
- (ii)
- (iii)
- (iv)

4



3. Place a **tick (✓)** in the correct box to show which of the following sentences are TRUE or FALSE. [4]

	TRUE	FALSE
ROM stands for Random Only Memory.	1 <input type="checkbox"/>	5 <input type="checkbox"/>
When the computer is switched off the content of ROM is lost.	2 <input type="checkbox"/>	6 <input type="checkbox"/>
RAM stores data temporarily.	3 <input type="checkbox"/>	7 <input type="checkbox"/>
Adding more RAM to a computer will increase its processing power.	4 <input type="checkbox"/>	8 <input type="checkbox"/>

4

4. Computer Aided Design (CAD) software can help when designing a house.

(a) Other than the mouse or keyboard, name an **input device** used with CAD software. [1]

.....

(b) Name an **output device** other than a printer which tends to be used when using CAD software. [1]

.....

(c) Give **two** features of CAD software which could be used by the designer. [2]

(i)

(ii)

4



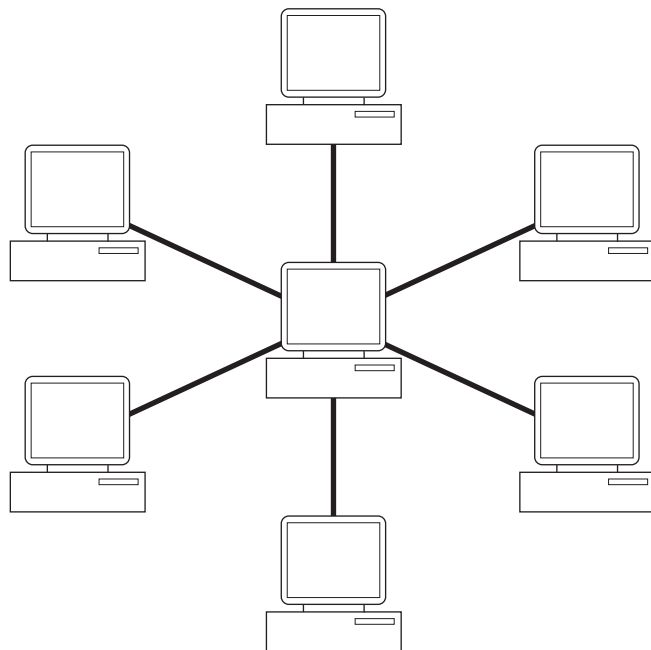
5. (a) Place a **tick (✓)** in the correct box to show whether each of the following statements are TRUE or FALSE. [4]

	TRUE	FALSE
LAN stands for Local Area Network.	1 <input type="checkbox"/>	5 <input type="checkbox"/>
WAN stands for World Area Network.	2 <input type="checkbox"/>	6 <input type="checkbox"/>
A BUS is one type of network topolgy.	3 <input type="checkbox"/>	7 <input type="checkbox"/>
A WAN is vulnerable to hacking and viruses.	4 <input type="checkbox"/>	8 <input type="checkbox"/>

(b) Give **two** advantages of networks over standalone computers. [2]

- (i)
- (ii)

(c) Networks can be arranged in different ways. Name the type of network shown below. [1]



6. The Data Protection Act (DPA) deals with personal data held on computer.

(a) Name **three** principles of the DPA. [3]

(i)

(ii)

(iii)

(b) Place a **tick (✓)** to show which of the following data does not need to be registered. [3]

Tick (✓)

Data used for national security.

 1

Data used to prevent crime.

 2

Data used when applying for a job.

 3

Data for home use.

 4

6

7. Place a **tick (✓)** in the correct box to show whether each of the following descriptions would be most likely carried out during the validation or verification process. [4]

Description	Validation	Verification
Proof reading	<input type="checkbox"/> 1	<input type="checkbox"/> 5
Checking that the date of birth is in the correct format e.g. 99/99/9999	<input type="checkbox"/> 2	<input type="checkbox"/> 6
Typing a password in twice	<input type="checkbox"/> 3	<input type="checkbox"/> 7
Checking that the age of a pupil is between 11 and 16	<input type="checkbox"/> 4	<input type="checkbox"/> 8

4



8. Computer Assisted Learning (CAL) software is used to help pupils in schools.

(a) Name **two** features of CAL software. [2]

(i)

(ii)

(b) Give **one** advantage of using CAL. [1]

.....

(c) Give **one** disadvantage of using CAL. [1]

.....

4

9. (a) **Tick (✓)** the **correct** statements about an operating system. [3]

Tick (✓)

The operating system is a program.

The operating system controls the running of all programs.

The operating system checks for viruses.

The operating system is hardware.

The operating system manages memory.

(b) Complete the table by inserting the letter for the most suitable type of operating system for **each** example. Use a term once only. [2]

- A Real Time (process control)
- B Real Time (transaction processing)
- C Batch Processing

EXAMPLE

OPERATING SYSTEM

BILLING SYSTEM

LIFE SUPPORT IN A HOSPITAL

5



10. Choose from the following words to complete the sentences shown below by writing the letter A, B, C or D in the correct box.

- A Palmtops**
- B Mainframes**
- C Microcomputers**
- D Microprocessors**

- (a) can be used to manage large networks. [1]
- (b) are found in schools and often called PCs. [1]
- (c) are embedded in devices such as washing machines. [1]
- (d) can be used as personal organisers with access to the Internet. [1]

4



11. Life support systems in hospitals use sensors.

(a) Give **two** sensors used in life support systems. [2]

(i)

(ii)

(b) Give **one** format used to display the readings from sensors. [1]

.....

(c) Give **two** advantages of using sensors in life support systems. [2]

(i)

(ii)

5

12. A school uses a computer system for school administration.

(a) The school administration system keeps the names, addresses and telephone numbers of pupils.

Give **three other** items of data you would expect to be kept on this database. [3]

(i)

(ii)

(iii)

(b) Name **two other** administration tasks the school could carry out using the computer system. [2]

(i)

(ii)

(c) Give **two** benefits to the school of using a computer for school administration. [2]

(i)

(ii)

7

