

Candidate Name	Centre Number	Candidate Number
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GCSE

178/02*252/01

**INFORMATION AND COMMUNICATION
TECHNOLOGY /
INFORMATION AND COMMUNICATION
TECHNOLOGY (PILOT)**

PAPER 2

Foundation Tier

A.M. FRIDAY, 5 June 2009

1 hour

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

INSTRUCTIONS TO CANDIDATES

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. Where the space is not sufficient for your answer, continue the answer at the back of the book, taking care to number the continuation correctly.

INFORMATION FOR CANDIDATES

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

Answer **all** questions.

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

DEVICE	INPUT	OUTPUT
 <p data-bbox="316 750 432 786">MOUSE</p>		
 <p data-bbox="300 1016 448 1052">MONITOR</p>		
 <p data-bbox="304 1279 437 1314">PRINTER</p>		
 <p data-bbox="300 1543 448 1579">SCANNER</p>		
 <p data-bbox="304 1807 443 1843">PLOTTER</p>		
 <p data-bbox="300 2067 448 2103">JOYSTICK</p>		

2. The main memory of a computer is made up of **RAM** and **ROM**.

(a) (i) What do the letters **RAM** stand for? [2]

.....

(ii) What do the letters **ROM** stand for?

.....

(b) Place a tick (✓) in the correct column to show whether each of the following statements about **RAM** and **ROM** are True or False. [4]

STATEMENT	TRUE	FALSE
RAM is used to store programs and data temporarily		
ROM retains its memory when the power is switched off		
A computer's performance is improved if it has more ROM than RAM		
ROM is volatile		

(c) **Circle** which of the following is the **smallest** amount of memory. [1]

Gigabyte Kilobyte

(d) Name **two** different types of storage device used by computers. [2]

(i)

(ii)

9

3. Complete the following sentences using the list below. [3]

OMR OCR Barcodes

- (i) Libraries make great use of
- (ii) One use of is to read post codes on letters.
- (iii) The National Lottery uses to capture data.

3

4. The Data Protection Act, (DPA) has eight basic principles.

(a) List **three** of these principles. [3]

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

(b) Give **two** rights individuals have regarding data held about them on computer. [2]

- (i)
- (ii)

(c) Name **one** organisation that is exempt from the DPA. [1]

.....

6

5. LAN and WAN are two different types of computer networks.

(a) (i) Write down what LAN stands for. [2]

L A Network.

(ii) Write down what WAN stands for.

W A Network.

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

- (i)
- (ii)

(c) Give **one** way of preventing unauthorised access to a network. [1]

.....

5

6. (a) Tick (✓) the correct column to show whether each of the following statements about an operating system are True or False. [5]

STATEMENT	TRUE	FALSE
An operating system is an example of software		
A computer will still work without an operating system		
Microsoft Windows is an operating system		
An operating system maximises the use of RAM		
An operating system handles interrupts		

- (b) Complete the table by inserting the most suitable type of operating system for each example. Use each term only once. [3]

REAL TIME (process control)

REAL TIME (transaction processing)

BATCH PROCESSING

EXAMPLE	OPERATING SYSTEM
Libraries	
Payroll	
Control of robots	

- (c) Icons are one feature of a graphical user interface (GUI).

- (i) What is an icon? [1]

.....

- (ii) Write down **three other** features of a GUI. [3]

(I)

(II)

(III)

7. Data used in weather forecasting is collected using a range of methods.

(a) Weather ships are one method of collecting this data.
Name **two** other methods of collecting weather data.

[2]

(i)

(ii)

(b) Name **two** sensors used to collect weather data.

[2]

(i)

(ii)

(c) Large, powerful computers are used to analyse the data.
Circle which of the following types of computer is suitable for this purpose.

[1]

palmtop

mainframe

laptop

5

8. A membership card for an on-line library is shown below.

<i>Borrowers ID</i>	4379
<i>Name</i>	John Jones
<i>Gender</i>	M
<i>Date of Birth</i>	1 2 0 4 9 3
<i>Password</i>	*****

- (a) State **two** fields most suitable for *verification*. [2]

(i)

(ii)

- (b) When data is input to a computer system it is checked to see if it is reasonable. This process is called *validation*. Name the data validation checks that could be used on the following data. [2]

DATA	VALIDATION CHECK
4379	
M	

- (c) When people apply for a library card, their date of birth is recorded as in the grid shown below.

D	D	M	M	Y	Y
---	---	---	---	---	---

Place a tick (✓) in the correct box against the date that would be accepted and give a reason, in each case, why the other three would be rejected. [4]

DATE	✓ IF ACCEPTED	REASON REJECTED
12APR93		
120493		
12041993		
124093		

9. Computer control is widely used in manufacturing.

(a) Give **two** advantages of using computer control. [2]

(i)

(ii)

(b) Give **two** disadvantages of using computer control. [2]

(i)

(ii)

(c) **Circle** which **two** of the following are examples of the use of process control. [2]

Controlling nuclear power stations

Hairdressing

Spray painting cars in the factory

Preparing a meal

6

