WJEC CBAC

GCSE

178/02

INFORMATION AND COMMUNICATION TECHNOLOGY

PAPER 2

Foundation Tier

A.M. FRIDAY, 6 June 2008

1 hour

Examiner's Use Only	
Total Mark	

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 suitable for **Secondary Storage**, **Input** or **Output**. [6]

Device	Secondary Storage	Input	Output
Keyboard			
Hard Disk			
Digital camera			
Monitor			
USB memory stick			
Printer			

2. Using the following words complete the sentences shown below: [4]

Palmtops   **Microprocessors**   **Mainframes**   **Microcomputers**

(a) .... are used to run large computer systems and networks in banks.

(b) .... can be used as an electronic diary.

(c) .... can be found in washing machines and microwave ovens.

(d) .... are most likely to be found as workstations on school networks.

3. Most schools and businesses have computer networks.

(a) What name is given when computers on **one** site are linked together? [1]

L .... **A** .... **N** ....

(b) What name is given when computers on **different sites** are linked together? [1]

W .... **A** .... **N** ....

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

(i) ....

(ii) ....

(d) Computer networks can be arranged in different ways. **Circle** the correct name for **each** network shown below and opposite.
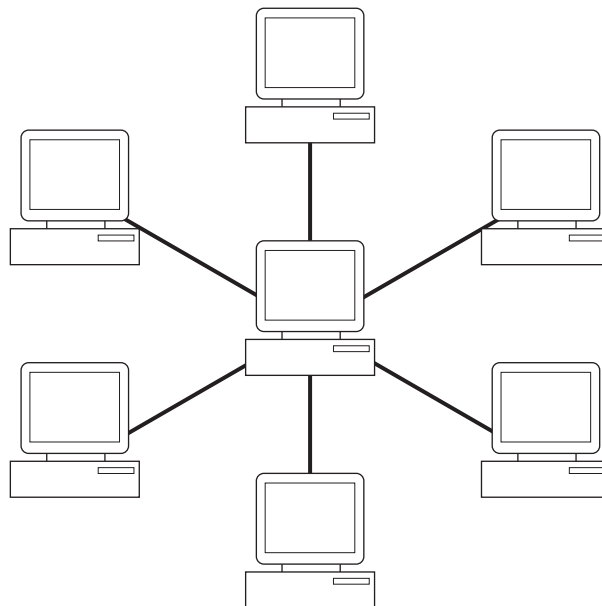
(i) the above diagram shows a **STAR** / **BUS** / **RING** network. [1]

     (ii)   the above diagram shows a **STAR** / **BUS** / **RING** network.   [1]

4.   The *Data Protection Act* (**DPA**) of 1998 contains eight basic principles.

    (a)   Write down **two** of these principles.   [2]

      (i)   ....
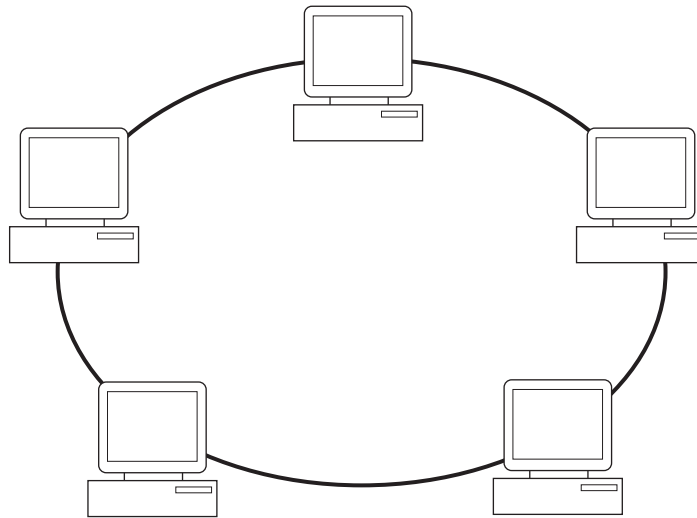
      (ii)   ....

    (b)   Give **two** exemptions from the DPA.   [2]

      (i)   ....

      (ii)   ....

5. Computer Assisted Learning (CAL) is used in a number of subjects in schools.

(a) Give **two** advantages of using CAL.

(i) ....

(ii) ....

(b) Give **one** disadvantage of using CAL.

....

(c) Give an example of the use of CAL in the classroom.

....

....

[4]

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

(a) **RAM** stands for ....

(b) **ROM** stands for ....

(c) Complete the following table by placing a tick (✓) in the appropriate row to show the different properties of RAM and ROM.

Properties	RAM	ROM
Permanent		
Temporary		

(d) Complete the blank cells in the table below:

Name	Approx size of bytes
Byte	1
	1000
	1000000
Gigabyte	1000000000

[6]

7. Computer Aided Design (CAD) packages are used by designers to assist them with their work.

(a) Name **two** different uses of CAD.

(i) ....

(ii) ....

(b) Complete the following sentences using the words below.

high resolution   **plotter**   **memory**

(i) A .... is sometimes used to print the design.

(ii) Monitors used for CAD have .... , from 1024 to 4096 pixels across.

(c) Give **three** special features/facilities you might expect to find in CAD software.

(i) ....

(ii) ....

(iii) ....

[7]

Turn over.

8. *(a)* Place a tick (✓) in the correct column to show whether **each** task is carried out by the *Operating System* or an *Application Program.*

Task	*Operating system*	*Application Program*
playing a game		
drawing a picture		
controlling the printer		
shutting down the computer		

(b) Most computers have a Graphical User Interface (GUI).

List **four** features of a GUI.

(i) ....

(ii) ....

(iii) ....

(iv) ....

(c) Complete the following table by matching the tasks below with the following operating systems.

Electricity bills   **Booking a holiday**   **Car assembly**

Operating System	*Task*
Real time (process control)	
Batch processing	
Real time (transaction processing)	

[11]

9. Place a tick (✓) in the box to show if the description is a method of **verification** or **validation**.

Description	Verification	Validation
Typing your password twice.		
Check the date is typed in the right format e.g. 15/07/2008.		
Check that the examination mark input is between 0 and 100.		
Proof read your work.		

[4]

10. Hospitals use *computer control*.

(a) Give **two** different examples of *computer control* in hospitals.

(i) ....

(ii) ....

(b) Give **one** advantage of using *computer control* in hospitals.

....

[3]

Turn over.

11. A school is updating its administration system.

(a) Name **two** *different* ways a system analyst can gather information about the current system.

(i) ....

(ii) ....

(b) Below is part of the information stored on pupils.

Name	Address	Telephone number	Form
Anita Begum	10 High Street, Cardiff	02920666778	11AT
Joan Jones	15 Main Road, Cardiff	02920543765	11CR
Emyr Davies	3 Water Street, Cardiff	02920447321	11SW

Give **one** *other* item of data the school could hold on pupils.

....

(c) Give **two** benefits to the school of using a computer system to store pupil information instead of keeping files in a cabinet.

(i) ....

....

(ii) ....

....

[5]

For continuation only.