INFORMATION AND COMMUNICATION TECHNOLOGY

PAPER 1 (FOUNDATION TIER)

2357/01

Tuesday   **23 MAY 2006**   Afternoon   1 hour

Candidates answer on the question paper.
No additional materials are required.

Candidate Name	

Centre Number					

Candidate Number			

TIME   1 hour

INSTRUCTIONS TO CANDIDATES

- Write your name, Centre number and candidate number in the boxes above.
- Answer **all** the questions.
- Write your answers, in blue or black ink, in the spaces on the question paper.
- Do not write in the bar code. Do not write in the grey area between the pages.
- **DO NOT** WRITE IN THE AREA **OUTSIDE** THE BOX BORDERING EACH PAGE. ANY WRITING IN THIS AREA WILL NOT BE MARKED.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [ ] at the end of each question or part question.
- No marks will be awarded for using brand names of software packages or hardware.
- The total number of marks for this paper is **60**.

FOR EXAMINER'S USE		
Question No.	Max. Marks	Mark
1	10	
2	4	
3	8	
4	7	
5	2	
6	7	
7	4	
8	12	
9	4	
10	2	
TOTAL	60	

This question paper consists of 9 printed pages and 3 blank pages.

[Turn over

Answer **all** questions.

1   Daisy uses this computer system to write reports for a school newsletter.
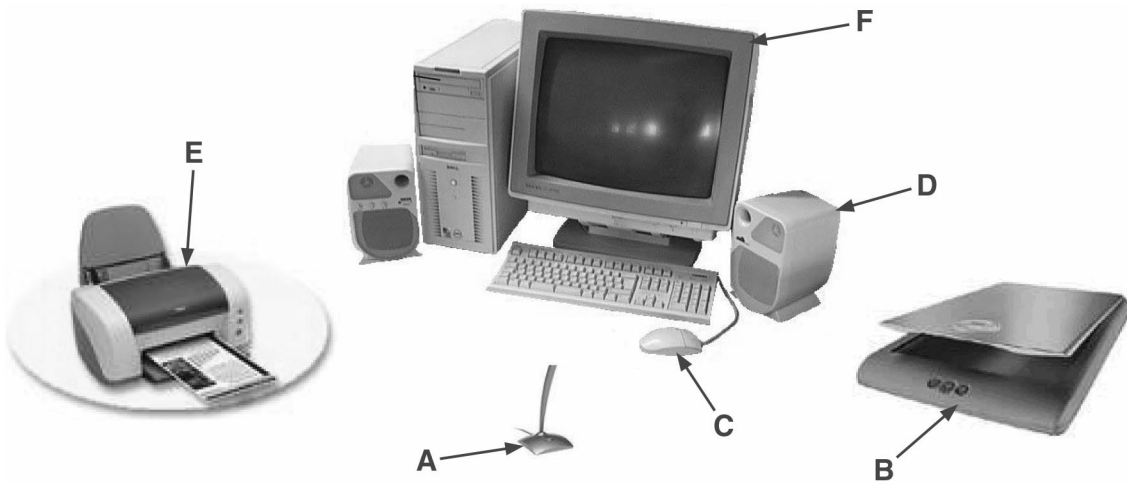
Name the items labelled **B**, **C**, **D**, **E** and **F**. Tick **one** box in each row to show whether the item is used for input or output.

Item **A** has been done for you.
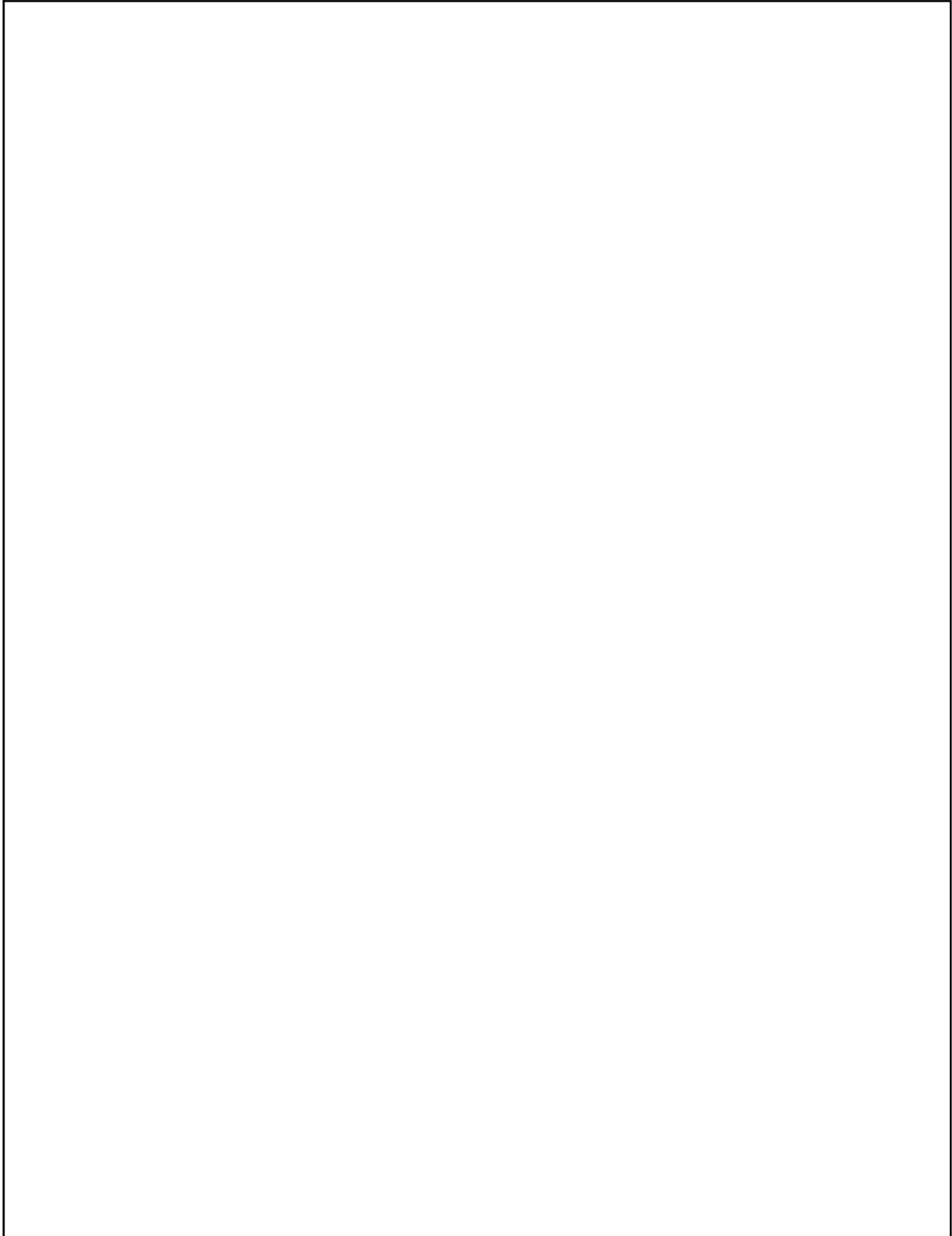
Item	Name of Item	Input (✓)	Output (✓)
A	Microphone	✔	
B			
C			
D			
E			
F			

[10]

2 Tick **one** box in each row to show whether the statement is true or false.

Statement	True (✓)	False (✓)
A modem is used to communicate using the telephone system		
Using a password will stop viruses from infecting your computer		
A floppy disk can store more data than a CD-ROM		
A field in a school database stores all the data about a pupil		

[4]

3 David is collecting data about the motor vehicles that pass his school. He stands at the school gates and records how many cars, vans, trucks and other vehicles go past.

(a) Use the space below to design a suitable data capture form that David could use to manually record his data each lunchtime for a week.

[6]

(b) Explain how David would fill in his form to record the number of each type of vehicle.

....

....[2]

4 Ali visits the school canteen at lunch break. He uses the spreadsheet shown here to automatically work out how much he has spent.

	A	B	C	D	E
1					
2					
3	drink	0.55	1	0.55	
4	chicken roll	0.98	2	1.96	
5	chocolate bar	0.45	1	0.45	
6	fruit	0.40	2	0.80	
7					
8					

(a) Give the cell reference of a cell that contains a label.

....[1]

(b) Give the cell reference of the cell that contains the amount that Ali has spent on drinks.

....[1]

(c) One of the cells contains the formula =B4*C4.
Give the cell reference of this cell.

....[1]

(d) Ali needs a formula to calculate the total spent at the canteen.
Write down the most suitable formula that he could use.

....[2]

(e) Ali decides to buy two chocolate bars instead of one.

(i) Give the cell reference of the cell he must change to show this.

....[1]

(ii) Give the cell reference of another cell that will change as a result of this.

....[1]

[Turn over

5 Katherine wants to store the names, contact details and other personal information about her friends on her computer. She decides to store the details in a database.

Give **two** reasons why she uses a database.

Reason 1 ....

....

Reason 2 ....

....[2]

6 (a) An on-line bookseller has set up a database of customers and their details.

Tick **one** box in each row to choose the most suitable data type for each of the examples of data shown in the table.

Description of data	Example	Boolean (✓)	Text (✓)	Numeric (integer) (✓)	Numeric (real) (✓)
Telephone number	01223 2345				
Account has been paid	N				
Amount paid	£25.89				
Number of books	14				

[4]

(b) State what is meant by these database terms.

(i) a record ....

....[1]

(ii) a field ....

....[1]

(iii) a file ....

....[1]

7 A floor turtle can use the following instructions.

INSTRUCTION	SHORT INSTRUCTION	MEANING
REPEAT *n* [ ]	REPEAT *n* [ ]	Repeat the instructions in square brackets *n* times
FORWARD *n*	FD *n*	Move *n* cm forward
BACKWARD *n*	BK *n*	Move *n* cm backward
LEFT *n*	LT *n*	Turn left *n* degrees
RIGHT *n*	RT *n*	Turn right *n* degrees

(a) A set of instructions was given to the floor turtle and it drew this triangle with equal sides.
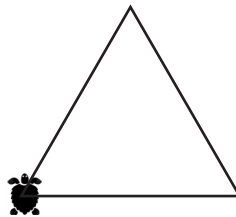
Complete the instructions.

RIGHT 30

.... **[FORWARD 20 RIGHT 120]**   [2]

(b) Another set of instructions was used to create this shape.

Complete the instructions.

　　　　　FORWARD 25

　　　　　RIGHT 90

　　　　　……………………… **25**

　　　　　RIGHT 90

　　　　　FORWARD 50

　　　　　……………………… **90**

　　　　　FORWARD 100

8 A factory discharges its waste materials into a nearby river.
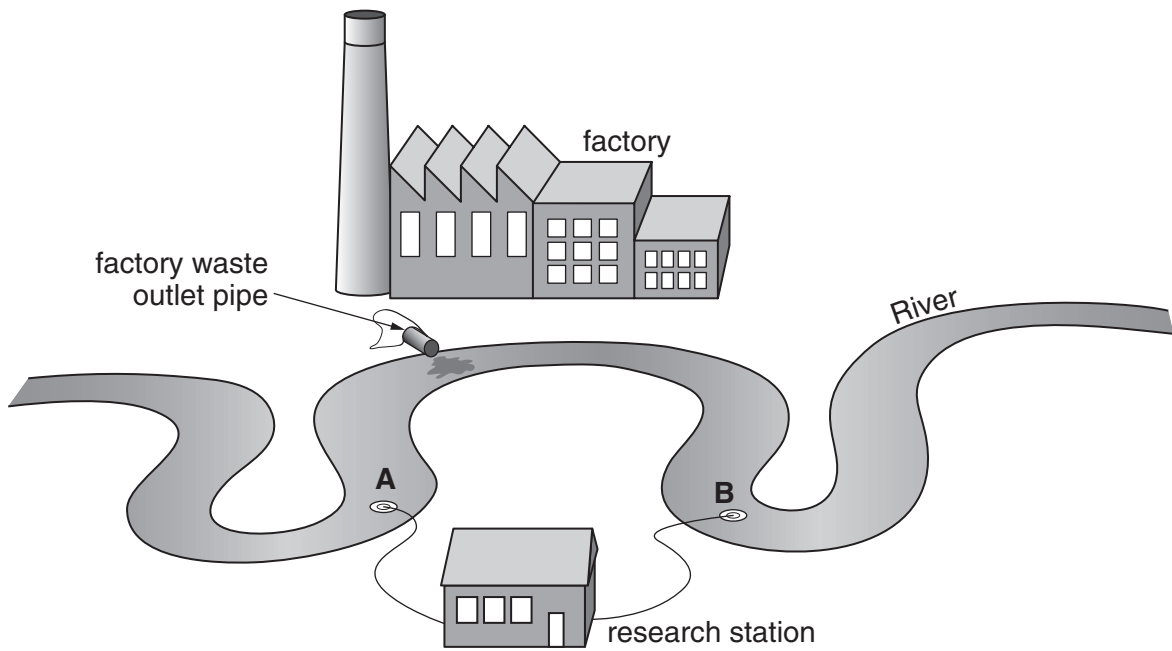
A research station monitors the conditions in the river using sensors (**A** and **B**) connected to a computer.

(a) State **two** suitable sensors that could be used by the research station to monitor the river.

Sensor 1 ....

Sensor 2 ....[2]

(b) Explain why the river conditions are monitored using sensors and a computer rather than manually.

....

....

....

....

....

....[4]

(c) The scientists at the research station want to analyse the data and display the results in a report.
Describe how they would do this.

....

....

....

....

....

....

....

....

....

....

....[6]

9 Describe ways a family could use the Internet to plan a visit to the cinema.

....

....

....

....

....

....[4]

10 Angela is downloading music files from the Internet and using them to make CDs to sell at school.
Explain why Angela should **not** do this.

....

....

....

....[2]

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12
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