

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

**INFORMATION TECHNOLOGY**

Paper 2



**0418/02**

May/June 2005

**1 hour 15 minutes**

Candidates answer on the Question Paper.  
No Additional Materials are required.

Candidate  
Name

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Centre  
Number

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Candidate  
Number

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**READ THESE INSTRUCTIONS FIRST**

Write your Centre number, candidate number and name on all the work you hand in.  
Write in dark blue or black pen in the spaces provided on the Question Paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **all** questions.  
At the end of the examination, fasten all your work securely together.  
The number of marks is given in brackets [ ] at the end of each question or part question.

DO NOT WRITE IN THE BARCODE.

DO NOT WRITE IN THE GREY AREAS BETWEEN THE PAGES.

**For Examiner's Use**

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This document consists of **11** printed pages and **1** blank page.



- 1 Ring **two** input devices which would be used at an EFTPOS terminal.

**bar code reader**

**CD ROM drive**

**joystick**

**trackerball**

**MICR**

**magnetic stripe reader**

[2]

- 2 Ring **two** items which **should** be present for a customer to book an airline ticket using a computer at home.

**CD ROM drive**

**floppy disc drive**

**graphics tablet**

**modem**

**speakers**

**telephone line**

[2]

- 3 Tick **two** benefits of using computers in libraries.

More books are read	
Reminders for overdue books can be sent out automatically	
Librarians can find borrowers' records more quickly	
Borrowers can take out more books	
Libraries have more borrowers	
Librarians don't have to be paid as much	

[2]

4 Complete each sentence below using items from the list.

**a bar code reader**

**a data logger**

**a magnetic stripe reader**

**MICR**

**OMR**

**a robot**

**a simulation**

**validation**

**verification**

- (a) The painting of a car on a production line would be carried out using .....
- (b) Data from a cheque is input using.....
- (c) Data from a tin of beans in a supermarket is input using .....
- (d) Inputting pencil marks from exam papers is done using .....

[4]

5 Tick whether the following statements about computer controlled production lines are **TRUE** or **FALSE**.

	TRUE ✓	FALSE ✓
Faster cars are produced		
Robots don't need paying		
Robots never take breaks		
Robots never break down		

[4]

6 A systems analyst has been employed to computerise a pharmacy's record keeping.

(a) Ring **two** ways in which they could analyse the current system.

- create a brochure**
- design a system**
- go to the library**
- look on the Internet**
- observation**
- questionnaires**

[2]

(b) The systems analyst recommends that the pharmacy buys a new computer. He will also create a database to store the records of all the medicines. Identify **two** ways the system could be implemented.

- 1 .....
- .....
- 2 .....
- .....[2]

(c) The pharmacist will be able to search for details of medicines using the database software. Give **two** other features of database software.

- 1 .....
- .....
- 2 .....
- .....[2]

(d) The information will be stored on hard disc. State the type of access needed to search for a single record quickly.

.....[1]

(e) The pharmacist will be given two types of documentation after the system is implemented.

(i) Name **two** items which will be contained in the technical documentation.

1.....  
.....  
2.....  
.....[2]

(ii) Name **two** items which will be contained in the user documentation which will not be present in the technical documentation.

1.....  
.....  
2.....  
.....[2]

7 Describe what is meant by a LAN and a WAN.

LAN.....  
.....  
.....[2]

WAN.....  
.....  
.....[2]

8 Many supermarkets use computer systems at their checkouts. As an item is bought the code number is input to the computer.

(a) Name **two** methods of inputting this number into the supermarket computer.

1 .....

.....

2 .....

.....[2]

(b) Write down **two** reasons why one of the methods you gave in (a) is better than the other.

1 .....

.....

2 .....

.....[2]

(c) Customers can pay for their shopping using credit cards. Name **two** items of information stored on the magnetic stripe on credit cards.

1 .....

.....

2 .....

.....[2]

9 (a) Give **two** advantages of using a text book stored on a CD ROM rather than the book itself.

1 .....

.....

2 .....

.....[2]

(b) Give **two** disadvantages.

1 .....

.....

2 .....

.....[2]

- 10** A library has a computer system, part of which is a database of all the books in the library. It wants to set up a system so that users can sit at a computer and type in the name of the book. The details of this book will then appear on the screen.
- (a)** Design a suitable screen layout which the library could use to display the details of the book.



[5]

(b) The library intends to let users access their own record from home. Name **two** ways the library could use to make sure that each user only accessed their own record.

1 .....

.....

2 .....

.....[2]

(c) Give **two** reasons why the library might be worried about a user accessing other people's records.

1 .....

.....

2 .....

.....[2]

(d) Give **two** reasons why, despite these concerns, the library still wants to go ahead with this system.

1 .....

.....

2 .....

.....[2]

(e) With such a system, the library would be able to contact the users of the library by e-mail rather than by phoning them. Identify **two** advantages and **two** disadvantages of using electronic mail rather than using the phone.

Advantage 1 .....

.....

Advantage 2 .....

.....

Disadvantage 1 .....

.....

Disadvantage 2 .....

.....[4]



11 A group of doctors has decided to develop an expert system to help them with their medical diagnoses.

(a) List the steps required to create such a system.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....[4]

(b) Name **two** other applications which involve the use of expert systems.

1 .....

2 .....

.....[2]

12 Describe **two** types of test data which are used to test a system.

1.....  
.....  
.....

2.....  
.....  
.....  
.....[4]

13 A travel company wants its shops to take part in a video conference. The computers in each of its shops already have network cards and modems.

(a) Name **two** extra items of hardware they will need to add to their computers so they can hold this video conference.

1 .....

.....

2 .....

.....[2]

(b) Describe what is meant by video conferencing.

.....

.....

.....

.....

.....

.....[3]

(c) Identify **two** advantages to the company of such a system.

1 .....

.....

2 .....

.....[2]

14 Customers at a cinema can pay for their seats using a credit card. The cinema's computer then needs to communicate with the credit card company's computer.

Identify **two** checks that the credit card computer will make on the customer's credit card.

1.....

.....

2.....

.....[2]



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