

Candidate Name _____

Centre Number	Candidate Number

International General Certificate of Secondary Education
UNIVERSITY OF CAMBRIDGE LOCAL EXAMINATION SYNDICATE

INFORMATION TECHNOLOGY
PAPER 2

0418/2

SPECIMEN PAPER

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

TIME 1 hour 15 minutes

INSTRUCTIONS TO CANDIDATES

Write your name, Centre number and candidate number in the spaces provided on the answer paper/answer booklet.

Answer **all** questions

Write your answers in the spaces provided on the question paper.

INFORMATION FOR CANDIDATES

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

This question paper consists of 11 printed pages

1 Ring **two** input devices.

floor turtle

keyboard

plotter

printer

touch screen

monitor

[2]

2 Ring **two** items which are used to store files of data.

bar code

compact disc

graphics tablet

magnetic tape

modem

sensor

[2]

3 Ring **two** items which can easily taken from one computer and loaded into another computer.

CD ROM

floppy disc

RAM

ROM

operating a system

wide area network

[2]

4 Complete each sentence below using one item from the list.

a virus

a web page

control

data logging

e-mail

evaluation

MICR

photocopier

unsolicited mail

A program which can damage another program is called _____

Clearing cheques is done using _____

Comparing your solution to a problem with your original design is _____

Sending a document from your home computer to another computer is done

using _____

[4]

5 Tick **two** benefits of using computers to store medical records.

	✓
Doctors know the names of the patients.	
It is quick to find a patient's record.	
Doctors can give out correct medicine	
It uses less storage space.	
Doctors have more information about a patient.	
Doctors can perform more operations.	

[2]

- 6 A software company is producing a new car racing game.
- a) Ring **two** items which will be designed by the programmer before creating the program.

screen layout

microchips

user instructions

sample runs

memory

program structure

[2]

- b) A keyboard is used for entering text. State two other input devices which would be particularly suitable for playing the game.

Device 1 _____

Device 2 _____

[2]

- c) The company decides to sell the game on a CD ROM instead of many floppy discs. State **three** reasons why it should do this.

Reason 1 _____

Reason 2 _____

Reason 3 _____

[3]

- 7 Tick whether the following statements are **TRUE** or **FALSE**

	TRUE ✓	FALSE ✓
Wearing glasses when looking at a monitor cures eyestrain.		
Computer users should take regular breaks.		
A plastic cover over the keyboard prevents the screen flickering.		
A wrist rest will help prevent strain when typing.		

[4]

- 8 A small company buys a computer to keep records of sales.
- a) For the first six months the company uses the old method of record keeping as well as using the computer. State **one** reason for doing this.

[1]

- b) The company stores its records in a database on a hard disc. State the type of access needed to retrieve a single record quickly.

[1]

- c) State what the management must do once the new system is in place before the operators start using the system.

[1]

- 9 A school records details of pupils on a computer database. The following data are stored.
Surname, Forename, Form, Age, Home Address.

- a) i) State **one** reason why it is not advisable to store a pupil's age.

[1]

- ii) State how you would overcome this problem.

[1]

- iii) State why you would use more than one field for storing the home address.

[1]

- b) The secretary has to type the details into the database. State two ways of verifying the data.

1

2

[2]

- c) Name a device which could be used to input a photograph of a pupil into the database.

_____ [1]

- d) The school registers its data. Describe two rules from the Data Protection Act that the school must comply with.

Rule 1 _____

Rule 2 _____

_____ [2]

- 10 Complete the sentences.

- a) Multi-choice examination papers are marked using _____ [1]

- b) A _____ reader is used in a library to check out books quickly. [1]

- c) A single item is accessed from hard disc. This is known as _____ access. [1]

- 11 Tick **two** applications which use batch processing.

	✓
Booking a flight at a travel agent.	
Producing gas bills.	
Sending out reminders for overdue books.	
Withdrawing money from a cash point.	
Air traffic control.	
Monitoring a patient's condition in hospital.	

[2]

- 12 A mail order company keeps details of phone orders on computer. When customers ring up with their orders the phone operators use a screen input form to collect details of –

The customer;
Their order;
The method of payment.

New customers are given a customer number.

Design a screen input form which the manager could use for typing in the new customer's details.



[5]

- 13 Computers are now widely used in supermarkets.

- a) State **two** ways in which data about the goods may be entered into the point of sales (POS) terminals.

1 _____

2 _____

[2]

[Turn Over

- b) Customers can pay for their goods using credit cards. The computer checks each card. State **two** types of check made.

Check 1 _____

Check 2 _____

[2]

- c) State **three** advantages of supermarkets using Point of Sale (POS) technology.

Advantage 1 _____

Advantage 2 _____

Advantage 3 _____

[3]

- 14 Employees of a company have to enter 4 digit code numbers into a data-handling package.

- a) State **two** validation checks which could be used to check that the validation of the code numbers is working.

Type 1 _____

Type 2 _____

[2]

- b) Customers can pay for their goods using credit cards. The computer checks each card. State **two** types of check made.

Check 1 _____

Check 2 _____

[2]

c) State **three** advantages of supermarkets using Point of Sale (POS) technology.

Advantage 1 _____

Advantage 2 _____

Advantage 3 _____

[3]

14 Employees of a company have to enter 4 digit code numbers into a data-handling package.

a) State **two** validation checks which could be used to check that the validation of the code numbers is working.

Type 1 _____

Type 2 _____

[2]

b) If the code number was not validated, incorrect data will be entered into the database causing problems. State **one** example of such a problem.

[1]

15 A bicycle company uses robots in its factory which have an arm with a paint spray can attached.

a) State two ways in which the computer can be instructed to control the robot arm.

1 _____

2 _____

[2]

(b) State **two** advantages to the company of using a robot to do the painting.

Advantage 1 _____

Advantage 2 _____

[2]

(c) State **two** disadvantages to the company of using a robot to do the painting.

Disadvantage 1 _____

Disadvantage 2 _____

[2]

16 Many companies around the world use electronic conferencing to communicate with their employees around the world.

(a) Describe electronic conferencing.

[3]

(b) Describe the advantages and disadvantages of using electronic conferencing.

[3]

17

(a) Write down one application which uses an expert system.

[1]

(b) Describe how the expert system would be created.

[4]

18 A library is considering changing its computer system. The initial investigation has taken place and data about the old system has been collected. Describe the steps taken in the analysis and design of the new system.

[4]

19 With the easy availability of computers and phones and fax machines, many employees now have the facilities to work from home. Discuss the implications for:

(a) The employer

[2]

(b) The employee

[3]