Write your name here

Surname		Other names

Edexcel International GCSE

Centre Number

Candidate Number

Information and Communication Technology
Paper 1: Written paper

Thursday 31 May 2012 – Afternoon **Time: 1 hour 30 minutes**	Paper Reference **4IT0/01**

You do not need any other materials.	Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*

Information

- The total mark for this paper is 100.
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over

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PEARSON

SECTION A

Answer ALL questions.

**For each question, choose an answer A, B, C or D and put a cross in the box ⊠.
Mark only one answer for each question. If you change your mind about an answer,
put a line through the box ⊠ and then mark your new answer with a cross ⊠.**

1 The type of software used to write a letter is:

⊠ **A** presentation software

⊠ **B** database software

⊠ **C** spreadsheet software

⊠ **D** word processing software

(Total for Question 1 = 1 mark)

2 A graphics tablet is a type of:

⊠ **A** input device

⊠ **B** processor

⊠ **C** software

⊠ **D** output device

(Total for Question 2 = 1 mark)

3 An international airline stores customer information.

This information would be held on:

⊠ **A** an embedded computer

⊠ **B** a PC

⊠ **C** a laptop

⊠ **D** a mainframe computer

(Total for Question 3 = 1 mark)

4 James receives an email. He sends this on to his friend.

This is known as:

⊠ **A** copying

⊠ **B** forwarding

⊠ **C** attaching

⊠ **D** formatting

(Total for Question 4 = 1 mark)

5 Most Internet Service Providers (ISPs) provide software that allows parents to prevent children from accessing inappropriate websites.

This type of software is:

☒ **A** anti-virus software

☒ **B** a firewall

☒ **C** filtering software

☒ **D** an internet browser

(Total for Question 5 = 1 mark)

6 A customer uses a bank card to pay for goods at a supermarket checkout.

Where on the card is the customer's electronic data stored?

☒ **A** Microchip

☒ **B** Printed name

☒ **C** Hologram

☒ **D** Printed number

(Total for Question 6 = 1 mark)

7 A user gains access to a secure area by placing their finger on a scanner.

This type of scanner is known as:

☒ **A** biometric

☒ **B** ergonomic

☒ **C** digital

☒ **D** magnetic

(Total for Question 7 = 1 mark)

8 Which **one** of the following is an example of applications software?

☒ **A** RAM

☒ **B** Web authoring

☒ **C** Operating system

☒ **D** BIOS

(Total for Question 8 = 1 mark)

9 Bar code scanners are used in supermarkets.

One benefit of using a bar code scanner is that:

☒ **A** fewer goods are stolen

☒ **B** correct change is always given

☒ **C** customers can be served more quickly

☒ **D** higher prices can be charged

(Total for Question 9 = 1 mark)

10 Flash memory devices are available in a range of sizes.

Which **one** of these provides the largest storage capacity?

☒ **A** 500 Mb

☒ **B** 1 Tb

☒ **C** 500 Kb

☒ **D** 1 Gb

(Total for Question 10 = 1 mark)

11 A company has an intranet.

Which **one** of these statements is correct?

☒ **A** Only customers have access to information on the intranet

☒ **B** Internet access is needed to access the intranet

☒ **C** Only authorised users have access to the intranet

☒ **D** Web based emails can be sent via the intranet

(Total for Question 11 = 1 mark)

12 JRS Bank offers an online banking facility to customers.

Which **one** of these will customers be able to do online?

☒ **A** Pay cash into their account

☒ **B** Transfer funds between accounts

☒ **C** Withdraw foreign currency

☒ **D** Pay cheques into their account

(Total for Question 12 = 1 mark)

13 Computer Aided Design (CAD) systems are widely used in manufacturing.

One reason for using CAD systems is that:

⊠ **A** designers do not need training

⊠ **B** 3D designs can be produced

⊠ **C** they use few system resources

⊠ **D** manufacturing time is reduced

(Total for Question 13 = 1 mark)

14 Online banking has led to an increase in phishing. Phishing is a method of misleading people into providing personal information.

Identify **one** measure that should be taken to prevent phishing.

⊠ **A** Install a virus checker

⊠ **B** Do not open email attachments

⊠ **C** Install a firewall

⊠ **D** Do not reply to suspicious emails

(Total for Question 14 = 1 mark)

15 A computer connects to the internet using an ISP.

The information that the ISP requires to identify the computer is:

⊠ **A** an email address

⊠ **B** an IP address

⊠ **C** a WEP code

⊠ **D** a telephone number

(Total for Question 15 = 1 mark)

16 A company keeps a record of every modification made to their database files.

The name given to this record is a:

⊠ **A** data log

⊠ **B** transcription log

⊠ **C** transaction log

⊠ **D** backup log

(Total for Question 16 = 1 mark)

TOTAL FOR SECTION A = 16 MARKS

SECTION B

Answer ALL questions.

17 (a) The devices shown are all parts of a computer system.

For each device give its name **and** tick the box to show whether it is used for input or output.

The first one has been done for you.

(6)
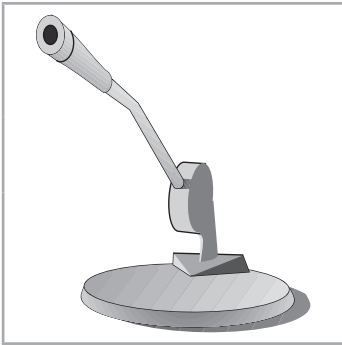
Device 1 ....**Microphone**........................

Input ✔

Output
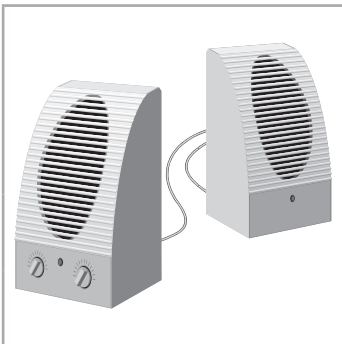
Device 2 ....

Input

Output

Device 3 ....

Input

Output

Device 4 ....

Input

Output

(b) Identify **one** device that can be used for both input and visual output.

(1)

....

(c) An optical disc is an example of portable storage media.

    (i)   Name **two** types of optical disc.

(2)

1 ....

2 ....

    (ii)   Identify **two** examples of data that could be stored on an optical disc.

(2)

1 ....

2 ....

(d) Some removable storage devices use flash memory.

Name **one** removable storage device that uses flash memory.

(1)

....

(Total for Question 17 = 12 marks)

18 *Cart-ink* is a company that sells ink cartridges.

The company has a network of five PCs based on one site.

(a) Name this type of network.

(1)

....

(b) The network has four workstations linked through a switch to a controlling computer.
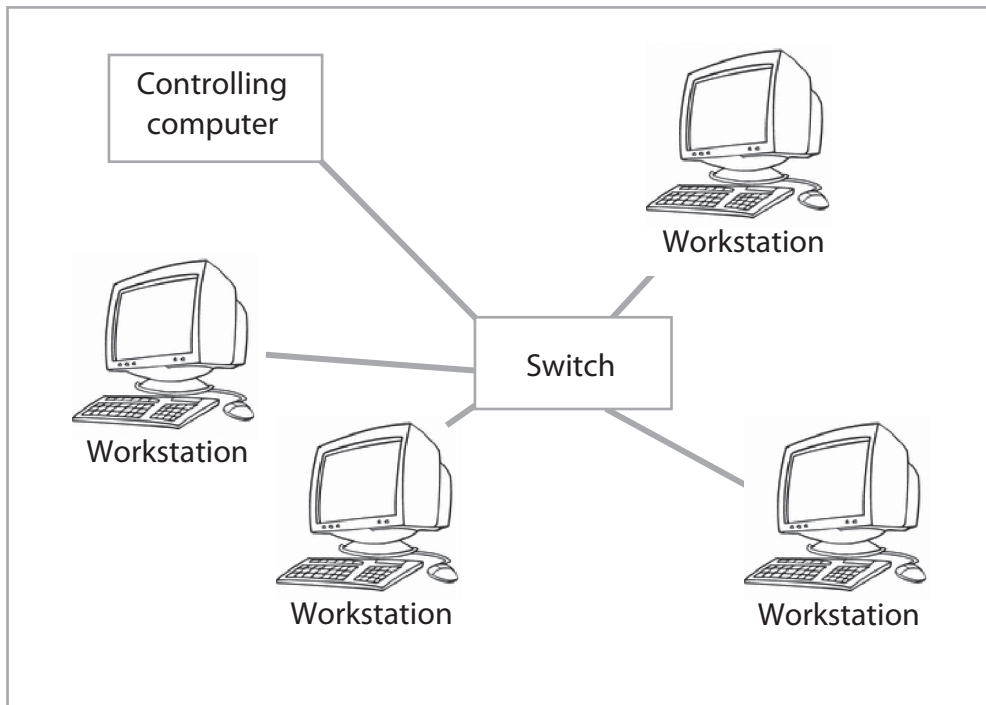
The name given to a **controlling computer** that runs a network is:

(1)

....

(c) Some staff have laptop computers, which connect wirelessly to the network.

Identify **two** methods of connecting wirelessly to the network.

(2)

1 ....

2 ....

(d) The company employs a network manager.

(i) One of the manager's tasks is to allocate user names and passwords to new staff.

When staff log on for the first time they are prompted to change their password.

Staff are encouraged to set strong passwords.

Give an example of a strong password. Explain why this password is strong.

(3)

Example ....

Explanation

....

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....

(ii) Staff are also encouraged to protect their passwords.

Identify **three** precautions staff should take to protect their passwords.

(3)

1 ....

....

2 ....

....

3 ....

....

Turn over ▶

(iii) The network manager also sets user access rights.

State **two** ways in which access rights impact upon the user.

(2)

1 ....

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2 ....

....

(e) Being able to set access rights is one benefit of having a network.

Identify **four other** benefits.

(4)

1 ....

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2 ....

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3 ....

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4 ....

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(f) The network has an internet connection.

The diagram shows how the network is connected to the internet.

(i) Identify the hardware device labelled **A** on the diagram.

(1)
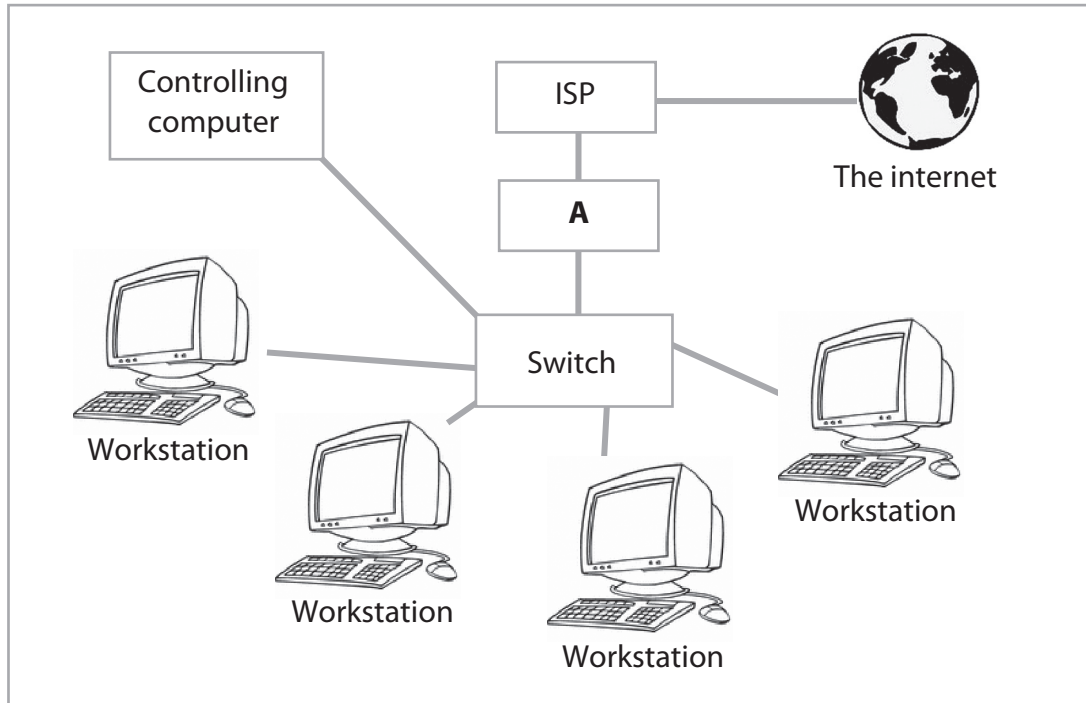
Device **A**

....

(ii) Identify **two** types of connection that can be used to connect the company network to the internet.

(2)

1 ....

2 ....

(Total for Question 18 = 19 marks)

19 Jonas wants to buy a PC.

He intends to use it to:

- download music

- watch videos

- play computer games

- communicate with friends.

(a) Jonas has been advised that in order to complete these tasks he will need a PC with a fast processor and a large amount of RAM.

    (i) Name the units used to measure the speed of a computer processor.

                                                               (1)

....

    (ii) Explain why Jonas has been advised to buy a computer with a large amount of RAM.

                                                               (4)

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    (iii) Jonas has selected a high resolution monitor.

        Identify another item of hardware that would enhance the viewing experience.

                                                               (1)

....

(b) Jonas will have applications software installed on his computer.

Identify **one** other type of software that **must** also be installed to run the applications.

                                                               (1)

....

(c) Jonas buys a computer game. This includes a software licence.

Explain the purpose of a software licence.

(3)

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(d) Jonas communicates with his friends using an internet chat room.

(i) Identify **two** other methods of communicating over the internet.

(2)

1 ....

2 ....

(ii) There are risks involved when using the internet to communicate.

Identify **three** precautions Jonas should take to help him stay safe.

(3)

1 ....

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2 ....

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3 ....

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(e) Jonas can watch videos from the internet by streaming or downloading them onto his computer.

Discuss the advantages and disadvantages of **each** method.

(6)

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(Total for Question 19 = 21 marks)

20 *Supa-Spa* is a small health club in London, UK.

(a) The temperature in the club is maintained between 18°C and 20°C using an air conditioning system.

(i) Identify **one** input device used to measure temperature.

(1)

Device

....

(ii) Identify the type of software that would be used to switch the air conditioning system on and off.

(1)

Software

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(b) Julia works in the office at *Supa-Spa*.

Julia sometimes gets headaches when working on her computer.

(i) Identify **two** settings that could be changed on her computer to reduce the problem.

(2)

1 ....

....

2 ....

....

(ii) Other than changing her computer settings, identify **three** other **actions** Julia could take to help reduce the problem.

(3)

1 ....

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2 ....

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3 ....

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(c) The personal data of *Supa-Spa* members is stored in a database.

Identify **three** legal constraints placed on *Supa-Spa* when storing members' personal data.

(3)

1 ....

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2 ....

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3 ....

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(d) The risk of unauthorised access to stored data can be reduced by setting passwords.

(i) Describe **two** other ways of reducing the risk.

(4)

1 ....

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2 ....

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(ii) Identify **two** risks to stored data, other than unauthorised access.

For each give a different method of reducing the risk.

(4)

Risk 1

....

Method

....

....

Risk 2

....

Method

....

....

(Total for Question 20 = 18 marks)

21 ICT has had a huge impact on individuals and society.

(a) One significant impact is on people's working lives.

(i) Describe the impact of ICT on people working in manufacturing.

(2)

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(ii) Describe the impact of ICT on people working in education.

(2)

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(iii) Describe the impact of ICT on people working in retail.

(2)

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(b) The internet gives people access to a huge amount of information.

The internet is not regulated; this has benefits and drawbacks.

(i) One drawback is that the information might not be reliable.

Give **two** ways in which a user could check the reliability of information.

(2)

1 ....

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2 ....

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(ii) Discuss the benefits **and** other drawbacks of the lack of regulation.

(6)

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(Total for Question 21 = 14 marks)

TOTAL FOR SECTION B = 84 MARKS
TOTAL FOR PAPER = 100 MARKS

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