

Write your name here

Surname

Other names

**Pearson Edexcel**  
**International GCSE**

Centre Number

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Candidate Number

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# Information and Communication Technology

## Paper 1: Written Paper

Friday 6 June 2014 – Morning  
**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 Which **one** of these is a portable device?

- A A super computer
- B A PC
- C A laptop
- D A mainframe computer

(Total for Question 1 = 1 mark)

2 The **most** appropriate type of software for producing a slide show is:

- A presentation software
- B graphics software
- C word processing software
- D web authoring software

(Total for Question 2 = 1 mark)

3 Which **one** of these is an appropriate output device for a slide show?

- A Microphone
- B Webcam
- C Data projector
- D Plotter

(Total for Question 3 = 1 mark)

4 Computer memory is measured in bytes.

Which **one** of these is the largest?

- A 1 kilobyte
- B 1 terabyte
- C 1 gigabyte
- D 1 megabyte

(Total for Question 4 = 1 mark)



5 Which **one** of these is an example of secondary storage?

- A Central Processing Unit
- B Applications software
- C Hard disk
- D System software

(Total for Question 5 = 1 mark)

6 Which **one** of these types of communication does **not need** an internet connection?

- A Mailing list
- B Mobile phone call
- C Videoconferencing
- D Multimedia chat

(Total for Question 6 = 1 mark)

7 An air conditioning system is used in a school.

The device used to measure the temperature is a type of:

- A scanner
- B plotter
- C monitor
- D sensor

(Total for Question 7 = 1 mark)

8 A cooling fan is automatically turned on when the temperature in a room goes above a pre-set temperature.

The type of system used to turn the cooling fan on is:

- A a modelling system
- B a control system
- C an administration system
- D a logistics system

(Total for Question 8 = 1 mark)



9 Data being processed by a computer is stored in:

- A RAM
- B CD
- C OCR
- D ROM

(Total for Question 9 = 1 mark)

10 Supermarkets use Electronic Point of Sale (EPOS) systems.

**One** benefit to customers when supermarkets use EPOS systems is that:

- A items will be processed more quickly
- B more items will be available
- C items will be fresher
- D staff will be more helpful

(Total for Question 10 = 1 mark)

11 Supermarket customers can pay for goods using bank cards.

Which **one** of these devices is used to read electronic data from a bank card?

- A Bar code scanner
- B Optical character reader
- C Biometric scanner
- D Chip and pin reader

(Total for Question 11 = 1 mark)

12 Which **one** of these statements is accurate?

All information on the internet:

- A is free from bias
- B has been checked for accuracy
- C can be legally copied
- D is subject to copyright laws

(Total for Question 12 = 1 mark)



**13** A computer system allows scientific experiments to be carried out in a virtual environment.

This type of system is known as:

- A** testing
- B** simulation
- C** control
- D** logistics

**(Total for Question 13 = 1 mark)**

**14** Teachers use Computer Aided Learning (CAL) systems to reinforce traditional learning methods.

**One** benefit of using CAL systems is that:

- A** students can get immediate feedback on their progress
- B** teachers can control a student's progress
- C** teachers do not need to prepare lessons
- D** students do not need motivation

**(Total for Question 14 = 1 mark)**

**15** The impact of the growing reliance on ICT in manufacturing has led to a reduced need for:

- A** unskilled workers
- B** skilled ICT workers
- C** training in ICT
- D** monitoring of machinery

**(Total for Question 15 = 1 mark)**

**16** The gap between 'information rich' and 'information poor' societies has widened.

Which **one** of these has **not** contributed to the widening of the gap?

- A** Lack of communication networks in some areas
- B** Speed of transmission of data between networks
- C** Lack of communication between individuals
- D** Speed of technological change

**(Total for Question 16 = 1 mark)**

**TOTAL FOR SECTION A = 16 MARKS**



## SECTION B

Answer ALL questions. Write your answers in the spaces provided.

17 Jon has a landscape gardening business. He has a PC with internet access.

(a) The table shows a list of items that Jon uses with his PC.

For each item put a cross in the correct box to show whether it is used for input, output, input and output or storage.

(6)

	Input only	Output only	Input and Output	Storage
Touch screen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mouse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CD-ROM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Keyboard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Speaker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Webcam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(b) Jon uses his PC to draw designs for gardens.

Identify **one** additional input device that Jon could use to draw his designs.

(1)



(c) Jon has decided to produce a leaflet to advertise his business.

Identify the most appropriate type of software application Jon should use.

(1)

(d) Jon has photographs of gardens that he has designed stored on his digital camera. He would like to use these photographs in his leaflet.

He uses an SD card to transfer the photographs from his camera to his PC.

(i) Identify the type of memory used in an SD card.

(1)

(ii) Describe **two** other methods of transferring photographs from a digital camera to a PC.

(4)

1 .....

.....

.....

2 .....

.....

.....

.....

(e) Jon clicks on the 'print preview' icon to check the layout of his leaflet.

Explain what is meant by the term **icon**.

(2)

.....

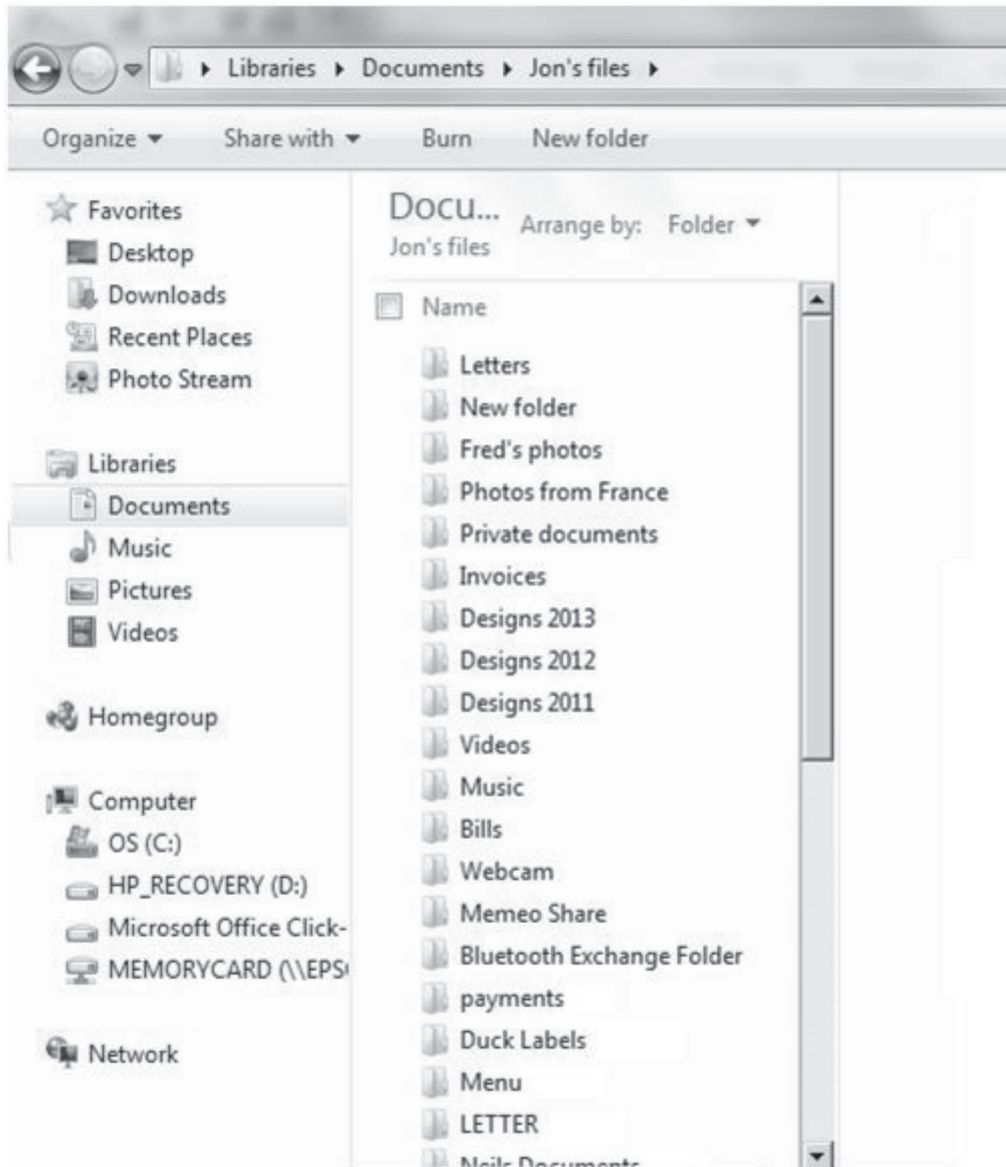
.....

.....

.....



(f) This screenshot shows part of the directory of Jon's computer system.



Jon has a large number of folders.

Describe **one** method that Jon could use to help him find a named folder quickly.

(2)

.....

.....

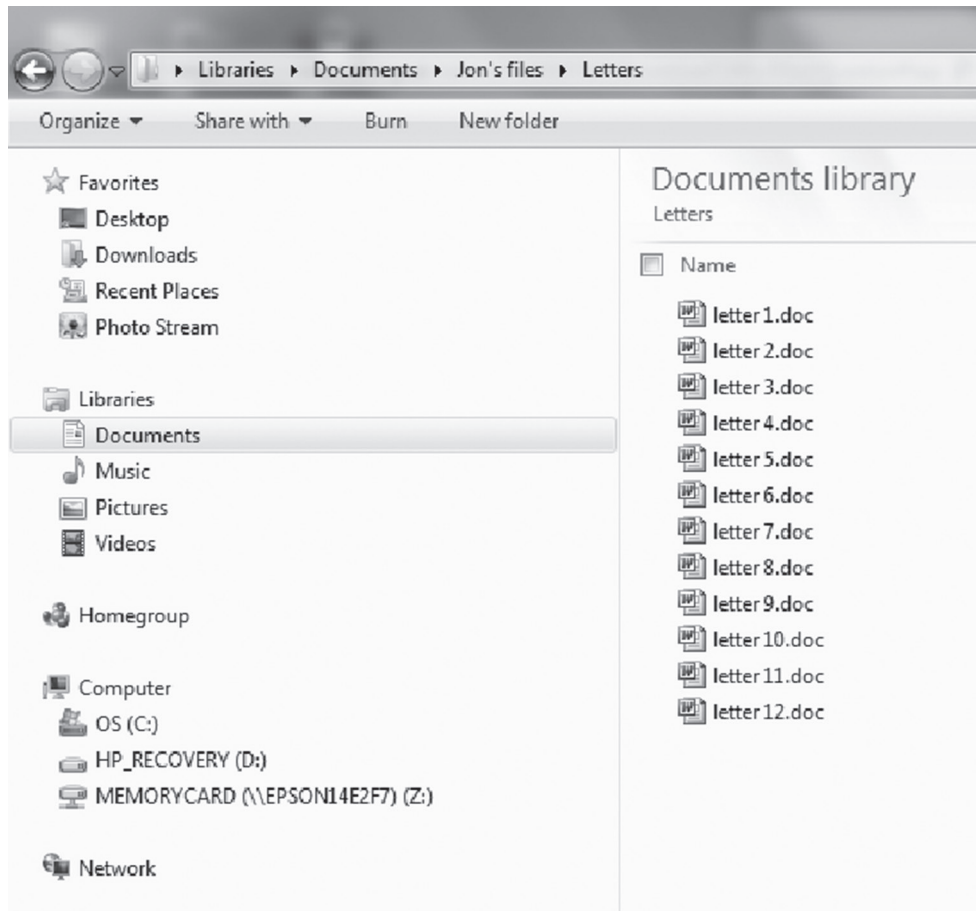
.....

.....





(g) This screenshot shows the contents of Jon's Letters folder.



Jon finds it difficult to find the letter he is looking for.

State **one** way in which he can make the contents of a file easier to identify.

(1)

.....

.....



(h) Jon spends a long time each day working on his computer. This can lead to a variety of health problems.

Two possible problems are backache and repetitive strain injury (RSI). Both of these can be reduced by taking regular breaks.

Give **two** solutions, other than taking regular breaks, for each problem.

(4)

**Backache**

Solution 1

.....  
.....

Solution 2

.....  
.....

**RSI**

Solution 1

.....  
.....

Solution 2

.....  
.....

**(Total for Question 17 = 22 marks)**



**18** *Sports-store* sells sports equipment and clothing. It has several high street stores in the UK and also sells goods online via its website.

(a) Give **three** benefits to a customer of buying sports goods online.

(3)

1 .....

2 .....

3 .....

(b) Give **three** reasons why some customers prefer to buy sports goods from high street stores.

(3)

1 .....

2 .....

3 .....



(c) *Sports-store* is considering closing all of its high street stores and selling only via its website.

(i) Identify **three** benefits to *Sports-store* of making this change.

(3)

1 .....

2 .....

3 .....

(ii) Identify **two** effects on the staff of *Sports-store* of making this change.

(2)

1 .....

2 .....

(d) Customers buying goods via the *Sports-store* website enter their personal details using an online form. Their details are automatically saved in a database.

Identify **two** benefits to *Sports-store* of this method of data capture.

(2)

1 .....

2 .....



(e) Customers can register to create an account with *Sports-store*. When an account is set up their personal details are saved.

(i) Give **two** advantages to the customer of their personal details being saved. (2)

1 .....

.....

2 .....

.....

(ii) Customers can log into their account to track a delivery.  
Identify **one** item of data that the system must use to track the delivery. (1)

.....

(iii) *Sports-store* records details of customer purchases.  
Describe **one** way in which *Sports-store* could use this data. (2)

.....

.....

.....

.....



(iv) *Sports-store* needs to comply with the Data Protection Act (DPA) because it handles personal data. One of the principles of the DPA is that personal data is kept accurate and up to date.

Identify **three** other principles of the DPA.

(3)

1 .....

.....

2 .....

.....

3 .....

.....

**(Total for Question 18 = 21 marks)**



19 *DSP International Bank* has branches in many countries.

(a) The bank has a computer network that links all of its branches via the internet.

Name this type of network.

(1)

(b) The bank has an intranet as part of the network.

(i) Explain what is meant by the term **intranet**.

(2)

(ii) Identify **three** facilities that could be provided by *DSP International Bank* as part of the intranet.

(3)

1 .....

2 .....

3 .....



(c) Branch managers hold virtual meetings over the internet.

(i) Identify **three** benefits to the bank of holding virtual meetings rather than face-to-face meetings.

(3)

1 .....

2 .....

3 .....

(ii) Identify **three** disadvantages of holding virtual meetings rather than face-to-face meetings.

(3)

1 .....

2 .....

3 .....





(d) David is a customer of *DSP International Bank*. He uses a wireless enabled laptop to access his account via the internet when he is at home.

(i) Identify **three** other requirements David needs to connect to the internet. (3)

- 1 .....
- 2 .....
- 3 .....

(ii) David has a username and password for his account. When he logs in he is also prompted to enter some of his 'memorable information'.

### Your memorable information

Please enter characters 7, 9 and 10 from your memorable information then click on the continue button.

Character 7:	Character 9:	Character 10:
Please enter... ▾	Please enter... ▾	Please enter... ▾

Having trouble logging in?

---

Cancel Continue

Give **two** ways in which this increases the security of the account. (2)

- 1 .....
- 2 .....

**(Total for Question 19 = 17 marks)**



**20** Mr Josefs has a computer that is used by himself and his 12-year-old son Alun. The computer is connected to the internet.

(a) Mr Josefs is concerned about giving Alun unrestricted access to the internet.

(i) Identify **three** reasons for his concerns.

(3)

1 .....

.....

2 .....

.....

3 .....

.....

(ii) Identify **one** physical step Mr Josefs could take to reduce his concerns.

(1)

.....

.....

(iii) Identify **two** ICT-based solutions that Mr Josefs could use to reduce his concerns.

(2)

1 .....

.....

2 .....

.....





21 Sandcrom Community Centre is used by people of all ages and abilities.

The centre has a small network of PCs with internet access. Users can also connect laptops and other mobile devices wirelessly to the network.

(a) State the piece of information that is used to uniquely identify a laptop when it is connected to the centre's network. (1)

.....

(b) When a user connects a laptop to the centre's network for the first time they are prompted to enter a network key.

Explain how the network key is used to secure data transmitted wirelessly. (2)

.....

.....

.....

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(c) Improved security is one advantage of using a wired rather than a wireless connection to access a network.

Identify **three** other advantages of using a wired rather than a wireless connection to access the network. (3)

1 .....

.....

2 .....

.....

3 .....

.....





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