

Paper reference 4IT1/01
Pearson Edexcel
International GCSE (9-1)

Total Marks

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)

PAPER 1: WRITTEN PAPER

Time: 1 hour 30 minutes

**In the boxes below, write your name,
centre number and candidate number.**

| | | | | | |
|-----------------------------|--|--|--|--|--|
| Surname | | | | | |
| Other names | | | | | |
| Centre Number | | | | | |
| Candidate Number | | | | | |

Y71559A



Pearson

YOU MUST HAVE
Nil.

YOU WILL BE GIVEN
A separate Data Book.

You do not need any other materials.

INSTRUCTIONS

- **Answer ALL questions.**
- **Answer the questions in the spaces provided in this Question Paper or in the Data Book – 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.**

Turn over

ADVICE

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

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

**Some questions must be answered
with a cross in a box ☐ .**

**If you change your mind about
an answer, put a line through the
box ☒ and then mark your new
answer with a cross ☐ .**

**Letta travels for work and holidays.
She uses ICT for planning her travel and
for entertainment.**

Question 1 is on the next page.

1. Letta uses a camera and camcorder when travelling.

**(a) Which ONE of these is a camcorder used for?
(1 mark)**

☐

A Backing up video files

☐

B Connecting a camera to a tablet

☐

C Creating presentation transitions

☐

D Creating video files

(continued on the next page)

Question 1 continued

- (b) Which ONE of these connectivity types is the fastest Letta could use to transfer files from her camcorder to her laptop?
(1 mark)**

☐

A 3G

☐

B GPS

☐

C NFC

☐

D USB

(continued on the next page)

Question 1 continued

- (c) Give ONE reason why WiFi is a better choice than Bluetooth for transferring files from her camera to her laptop.
(1 mark)**

(continued on the next page)

Question 1 continued

(d) Letta shares holiday photographs with her friends.

**(i) Explain ONE reason why Letta shares her photographs online using a social network rather than using email.
(2 marks)**

(continued on the next page)

Turn over

Question 1 (d) continued

- (d) (ii) Give ONE reason why Letta does not have to get permission to share photographs she takes with her camera.
(1 mark)**

(continued on the next page)

Question 1 continued

- (e) Letta uses a camera with a 128 GiB memory card.**

Each photograph uses 3 MiB of storage.

- (i) Construct an expression to show how many photographs can be stored on the memory card.
(2 marks)**

Answer space continues on the next page

Turn over

Question 1 (e) (i) continued

(continued on the next page)

Question 1 (e) continued

- (e) (ii) Which ONE of these is the type of storage used by the memory card?
(1 mark)**

☐

A Cloud

☐

B Flash

☐

C Magnetic

☐

D Optical

(continued on the next page)

Question 1 (e) continued

**(e) (iii) State ONE reason why
Letta's camera uses ROM.
(1 mark)**

**(iv) State ONE benefit to Letta
of the camera software using
compression.
(1 mark)**

(continued on the next page)

Turn over

Question 1 continued

- (f) Explain ONE advantage of increasing the speed of the camera's processor.
(2 marks)**

(continued on the next page)

Question 1 continued

(g) Letta backs up some photographs using an optical disk drive.

(i) Look at the photograph for Question 1 (g) (i) in the separate Data Book. It shows a laptop with the disk drive open.

Complete the answer lines below, labelling A and B of an optical disk drive.

(2 marks)

A _____

B _____

(continued on the next page)

Turn over

Question 1 (g) continued

**(g) (ii) Describe how an optical disk drive reads data from a disk.
(4 marks)**

Answer space continues on the next page

Turn over

Question 1 (g) (ii) continued

(continued on the next page)

Question 1 (g) continued

**(g) (iii) State ONE type of optical media Letta could use with the optical disk drive.
(1 mark)**

(continued on the next page)

Question 1 continued

- (h) Cameras and camcorders are examples of products that use an embedded system.**

Give ONE OTHER example of a product that uses an embedded system.

(1 mark)

(Total for Question 1 = 21 marks)

2. Letta arrives at a hotel.

(a) Letta fills in a form at the hotel reception desk.

**Which ONE of these is an OCR reader used for?
(1 mark)**

☐

A Finding data

☐

B Opening e–books

☐

C Recognising barcodes

☐

D Scanning text

(continued on the next page)

Question 2 continued

(b) Letta connects to the hotel's local area network.

(i) One way of identifying a device on a network is the device name.

State TWO OTHER ways of identifying a device on a network.

(2 marks)

WAY 1 _____

Answer space continues on the next page

Turn over

Question 2 (b) (i) continued

WAY 2 _____

(continued on the next page)

Question 2 (b) continued

- (b) (ii) State TWO reasons for identifying devices on a network.
(2 marks)**

REASON 1 _____

REASON 2 _____

(continued on the next page)

Question 2 (b) continued

**(b) (iii) State TWO ways a local area network (LAN) is different from a wide area network (WAN).
(2 marks)**

WAY 1 _____

WAY 2 _____

(continued on the next page)

Question 2 (b) continued

- (b) (iv) Explain ONE advantage of connecting a printer to a network.
(2 marks)**

(continued on the next page)

Question 2 (b) continued

- (b) (v) Look at the diagram for Question 2 (b) (v) in the separate Data Book.**

**Draw ONE straight line from EACH method of protecting a network to the correct use.
(3 marks)**

(continued on the next page)

Question 2 (b) continued

**(b) (vi) Which ONE of these connects to a local area network using a gateway?
(1 mark)**

☐

A Personal area network

☐

B Server

☐

C Smartphone

☐

D Wide area network

(continued on the next page)

Question 2 continued

(c) Letta watches a film online.

**Describe ONE way to reduce
the amount of time a film appears
pixellated when it first loads from
an online streaming service.
(2 marks)**

(continued on the next page)

Turn over

Question 2 continued

**(d) Describe high latency.
(2 marks)**

(continued on the next page)

Question 2 continued

(e) The hotel network manager has administrator privileges.

**(i) Explain ONE reason an administrator would use a network operating system to manage users.
(2 marks)**

(continued on the next page)

Turn over

Question 2 (e) continued

- (e) (ii) Explain ONE reason why the network manager should back up data regularly.
(2 marks)**

(continued on the next page)

Question 2 continued

- (f) The hotel staff use project management software.**

State what is meant by the term 'critical path'.

(1 mark)

(Total for Question 2 = 22 marks)

3. Letta uses an online travel booking system.

(a) A travel booking system is one type of online service.

**(i) Give TWO OTHER types of online service.
(2 marks)**

TYPE 1 _____

TYPE 2 _____

(continued on the next page)

Turn over

Question 3 (a) continued

- (a) (ii) List TWO features of a travel booking system.
(2 marks)**

FEATURE 1 _____

FEATURE 2 _____

(continued on the next page)

Question 3 continued

(b) Which ONE of these describes the role of cookies?
(1 mark)

☐

A Authentication

☐

B Backup

☐

C Encryption

☐

D Transaction tracking

(continued on the next page)

Question 3 continued

- (c) Which ONE of these describes safe practice when using online systems?
(1 mark)**

☐

A Acknowledging sources

☐

B Anonymising posts

☐

C Avoiding copyright

☐

D Paraphrasing

(continued on the next page)

Question 3 continued

- (d) Describe TWO positive impacts on society of increased access to technology.
(4 marks)**

POSITIVE IMPACT 1 _____

Answer space continues on the next page

Turn over

Question 3 (d) continued

POSITIVE IMPACT 2 _____

(continued on the next page)

Question 3 continued

(e) Letta checks some hotel reviews on an online community.

**(i) Describe ONE key feature of a wiki that is different from the key features of a forum.
(2 marks)**

(continued on the next page)

Turn over

Question 3 (e) continued

- (e) (ii) Describe ONE way an acceptable behaviour policy will benefit an online community.
(2 marks)**

(continued on the next page)

Question 3 (e) continued

- (e) (iii) Describe how ONE feature of an online community can be used to check that an acceptable behaviour policy is being followed. (2 marks)**

(Total for Question 3 = 16 marks)

4. Letta uses the Internet for work.

(a) Letta can collaborate with others so expertise can be shared.

Explain ONE OTHER way that the Internet could positively impact how Letta works.

(2 marks)

(continued on the next page)

Turn over

Question 4 continued

(b) Letta's employer uses hosted applications and storage.

(i) Explain ONE benefit to Letta's employer of doing this. (2 marks)

(continued on the next page)

Turn over

Question 4 (b) continued

- (b) (ii) State the type of computer used to store online software. (1 mark)**

(continued on the next page)

Question 4 continued

- (c) Describe how filter software works.
(2 marks)**

(continued on the next page)

Question 4 continued

- (d) Give TWO features of a strong password.
(2 marks)**

FEATURE 1 _____

FEATURE 2 _____

(continued on the next page)

Question 4 continued

- (e) Describe how pharming is a risk to data.
(2 marks)**

(continued on the next page)

Question 4 continued

**(f) Which ONE of these REDUCES sustainability?
(1 mark)**

☐

A Sending fewer emails

☐

**B Switching off computers
when not using them**

☐

**C Turning down screen
brightness**

☐

**D Using magnetic storage
rather than solid state storage**

(continued on the next page)

Question 4 continued

- (g) Discuss the factors that influence the choice of landline broadband or mobile broadband connectivity for rural communities.
(8 marks)**

Answer space continues on the next 4 pages

Turn over

Question 4 (g) continued

[illegible]

(continued on the next page)

Turn over

Question 4 (g) continued

[illegible]

(continued on the next page)

Turn over

Question 4 (g) continued

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Turn over

Question 4 (g) continued

(Total for Question 4 = 20 marks)

5. Letta downloads software to her laptop.

**(a) Explain TWO reasons why locally installed software is used for editing video.
(4 marks)**

REASON 1 _____

Answer space continues on the next page

Turn over

Question 5 (a) continued

REASON 2 _____

(continued on the next page)

Question 5 continued

- (b) State TWO purposes of communication software.
(2 marks)**

PURPOSE 1 _____

PURPOSE 2 _____

(continued on the next page)

Question 5 continued

- (c) Explain why systems software should be updated regularly.
(2 marks)**

(continued on the next page)

Question 5 continued

- (d) List TWO peripheral devices that could be used to input text by people who are unable to use a mouse and keyboard.**

(2 marks)

PERIPHERAL DEVICE 1 _____

PERIPHERAL DEVICE 2 _____

(continued on the next page)

Question 5 continued

- (e) Explain ONE benefit of using defragmentation after installing software on a magnetic hard disk. (2 mark)**

(continued on the next page)

Question 5 continued

- (f) State the type of utility software that reduces the size of a file.
(1 mark)**

(continued on the next page)

Question 5 continued

- (g) Discuss the choices society must make about the rights of individuals when monitoring movements and communications. (8 marks)**

Answer space continues on the next 4 pages

Turn over

Question 5 (g) continued

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Question 5 (g) continued

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Turn over

Question 5 (g) continued

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Question 5 (g) continued

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(Total for Question 5 = 21 marks)

TOTAL FOR PAPER = 100 MARKS

END OF PAPER