

Please check the examination details below before entering your candidate information

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| Candidates surname   |                      |                      |                      |                      | Other names          |                      |                      |                      |  |
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**Pearson Edexcel International GCSE (9–1)**

**Time** 1 hour 30 minutes

**Paper reference** **4IT1/01**

**Information and Communication Technology (ICT)**

**PAPER 1: Written Paper**

**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.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

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Q:1/1/1/



  
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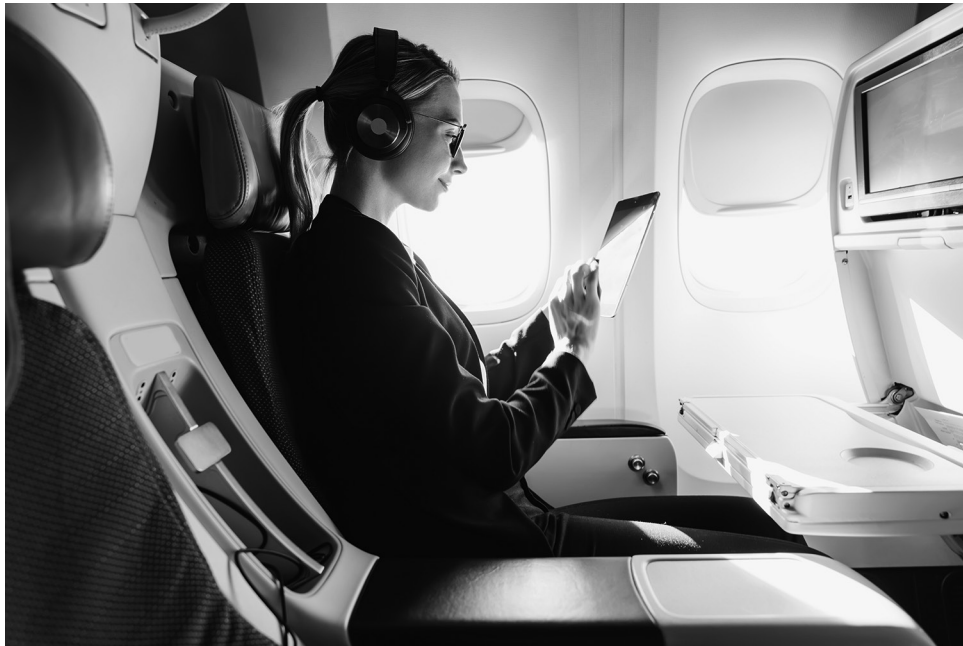


**Answer ALL questions.**

**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.



**1** Letta uses a camera and camcorder when travelling.

(a) Which **one** of these is a camcorder used for?

(1)

- ☐ **A** Backing up video files
- ☐ **B** Connecting a camera to a tablet
- ☐ **C** Creating presentation transitions
- ☐ **D** Creating video files



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

(1)

- ☐ **A** 3G
- ☐ **B** GPS
- ☐ **C** NFC
- ☐ **D** USB

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

(1)

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(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)

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

(1)

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(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)

(ii) Which **one** of these is the type of storage used by the memory card?

(1)

- ☐ **A** Cloud
- ☐ **B** Flash
- ☐ **C** Magnetic
- ☐ **D** Optical

(iii) State **one** reason why Letta's camera uses ROM.

(1)

(iv) State **one** benefit to Letta of the camera software using compression.

(1)



(f) Explain **one** advantage of increasing the speed of the camera's processor.

(2)

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

(i) Complete the labelling of this diagram of an optical disk drive.

(2)



(ii) Describe how an optical disk drive reads data from a disk.

(4)

(iii) State **one** type of optical media Letta could use with the optical disk drive.

(1)

(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)

**(Total for Question 1 = 21 marks)**

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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)

- ☐ **A** Finding data
- ☐ **B** Opening e-books
- ☐ **C** Recognising barcodes
- ☐ **D** Scanning text

(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)

1 .....

2 .....

(ii) State **two** reasons for identifying devices on a network.

(2)

1 .....

2 .....

(iii) State **two** ways a local area network (LAN) is different from a wide area network (WAN).

(2)

1 .....

2 .....

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(iv) Explain **one** advantage of connecting a printer to a network.

(2)

(v) Draw **one** straight line from **each** method of protecting a network to the correct use.

(3)

### Method

### Use

Firewall

Blocks ports in a network

Encryption

Authenticates users

Biometric

Prevents data from being understood if intercepted

Deletes viruses from infected networks

(vi) Which **one** of these connects to a local area network using a gateway?

(1)

- ☐ **A** Personal area network
- ☐ **B** Server
- ☐ **C** Smartphone
- ☐ **D** Wide area network

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(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)

(d) Describe high latency.

(2)

(e) The hotel network manager has administrator privileges.

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

(2)

(ii) Explain **one** reason why the network manager should back up data regularly.

(2)



(f) The hotel staff use project management software.

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

(1)

**(Total for Question 2 = 22 marks)**

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**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)

1 .....

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2 .....

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(ii) List **two** features of a travel booking system.

(2)

1 .....

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2 .....

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(b) Which **one** of these describes the role of cookies?

(1)

- ☐ **A** Authentication
- ☐ **B** Backup
- ☐ **C** Encryption
- ☐ **D** Transaction tracking

(c) Which **one** of these describes safe practice when using online systems?

(1)

- ☐ **A** Acknowledging sources
- ☐ **B** Anonymising posts
- ☐ **C** Avoiding copyright
- ☐ **D** Paraphrasing

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(d) Describe **two** positive impacts on society of increased access to technology.

(4)

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2 .....

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(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)

- (ii) Describe **one** way an acceptable behaviour policy will benefit an online community.

(2)

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

(2)

**(Total for Question 3 = 16 marks)**



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**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)

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

- (i) Explain
- one**
- benefit to Letta's employer of doing this.

(2)

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- (ii) State the type of computer used to store online software.

(1)

- (c) Describe how filter software works.

(2)

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- (d) Give
- two**
- features of a strong password.

(2)

1

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(e) Describe how pharming is a risk to data.

(2)

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(f) Which **one** of these **reduces** sustainability?

(1)

- ☐ **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



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

(8)

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(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)

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2 .....

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(b) State **two** purposes of communication software.

(2)

1 .....

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2 .....

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(c) Explain why systems software should be updated regularly.

(2)

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

(2)

1 .....

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2 .....

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

(2)

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

(1)

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

(8)

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(Total for Question 5 = 21 marks)

**TOTAL FOR PAPER = 100 MARKS**



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