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Please check the examination details below before entering your candidate information

Candidate surname	Other names

Centre Number | Candidate Number

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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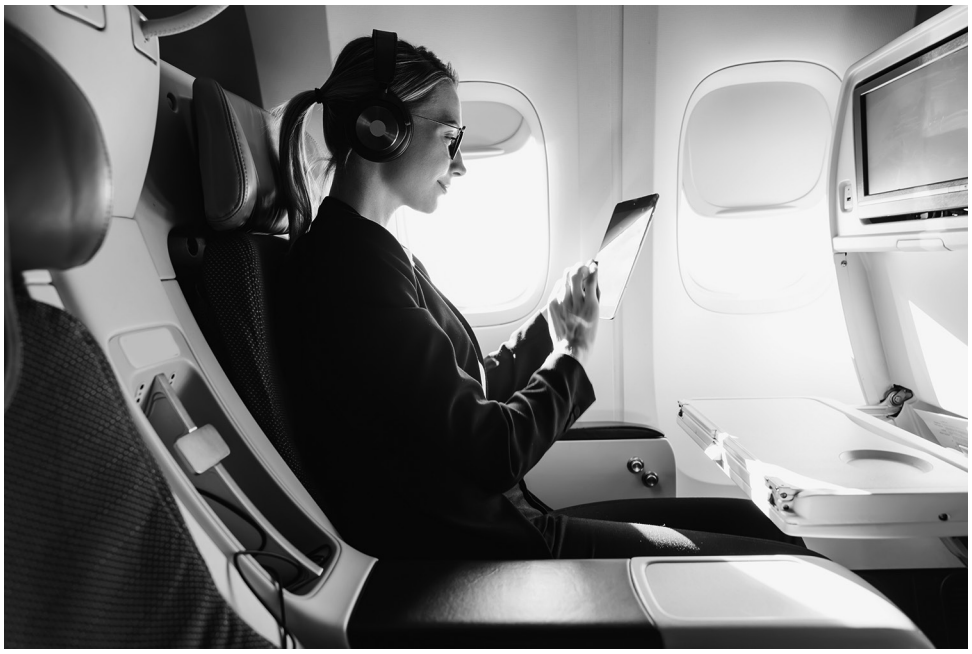
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Answer ALL questions.

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

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(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)

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

(2)

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

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

(2)



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

(4)

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

(1)

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(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)

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(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 .....

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2 .....

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

(2)

1 .....

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

(2)

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

(2)

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(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)

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(f) The hotel staff use project management software.

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

(1)

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(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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(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)

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

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

(2)

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

(1)

(c) Describe how filter software works.

(2)

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

(2)

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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

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(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)

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

(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)

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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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