

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)					<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>			
Monday 11 May 2020								
Morning (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 <input type="text"/>	

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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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 ☒.

Sachini and Ashan have two children, Kasuni and Deshan.
They use digital devices in their daily lives.



(Source: © Pearson Asset Library)

1 Sachini shops online for a new laptop.

(a) Give **two** advantages of shopping online rather than on the high street.

(2)

1

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(b) Which **one** of these uses magnetic media?

(1)

- A Solid state disc
- B Flash disc
- C Hard disc
- D Optical disc

(c) Sachini cannot access Wi-Fi.

Name **one** type of mobile phone connectivity that Sachini could use to access the Internet.

(1)

(d) The amount of RAM in a computer can be increased.

(i) Explain **one** benefit to the user of increasing the amount of RAM.

(3)

Benefit

Explanation



(ii) One characteristic of RAM is that it can be increased.

Describe how **two other** characteristics of RAM and ROM affect their use.

(4)

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(e) Sachini chooses to recycle her old laptop.

Describe **two** ways in which the improper disposal of digital devices could be harmful to human health.

(4)

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(f) Which **one** of these is a type of storage media?

(1)

- A** CD drive
- B** Magnetic tape
- C** RAM
- D** SSD



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(g) The laptop can store 128 GiB of data.

Construct an expression to show how many bits are in 128 GiB.

(3)

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(h) Some people cannot go online because of their religious beliefs.

List **two other** causes of unequal access to ICT.

(2)

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(Total for Question 1 = 21 marks)



2 Sachini plays online games on her laptop.

(a) List **two** ways Sachini can reduce the risk of developing repetitive strain injury (RSI). (2)

1

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2

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(b) The laptop has a built-in keyboard and mouse.

Draw a diagram to show how Sachini can connect **two other** devices to the laptop that will enable her to control a game.

Label each device and the connectivity you use in your diagram. (3)



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(c) Sachini creates a personal area network (PAN) with her laptop and her smartphone.

Describe **one** way that Sachini could use a PAN with these devices.

(2)

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(d) Describe the function of a web browser.

(2)

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(e) Describe how Sachini can update the game software.

(2)

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(f) Give **two** reasons why Sachini should update the game software.

(2)

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(g) The game is stored on a DVD-R.

Explain why the game does not require rewritable optical storage media.

(2)

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(h) The laptop uses a fingerprint scanner.

Which **one** of these describes this device?

(1)

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- A Media support
- B Expansion capability
- C Security feature
- D Storage

(Total for Question 2 = 16 marks)



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3 Ashan works in an office with a network.

(a) He uses his smartphone to make an online video call.

(i) Which **one** of these does Ashan need to do this?

(1)

A WAN

B WEP

C WPA

D WAP

(ii) Describe how high latency affects his experience of the video call.

(2)

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(iii) State **three** ways in which latency can be reduced.

(3)

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(b) State the role of an ISP.

(1)

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(c) State the function of a gateway.

(1)

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(d) Describe **two** benefits of using a client–server network.

(4)

Benefit 1

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Benefit 2

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(e) Which **one** of these is a method of identifying a computer on a network?

(1)

- A HTTP
- B WEP
- C FTP
- D IP

(f) Which **one** of these is a feature of a media access control address?

(1)

- A It directs protocols
- B It is unique
- C It has to be entered into a web browser
- D It encrypts downloads



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(g) Ashan tells Sachini that her smartphone will not be able to use her location as she is not connected to the Internet.

State the reason why Ashan is wrong.

(1)

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(h) Ashan needs to print some documents.

Explain **two** ways an inkjet printer performs differently to a laser printer.

(4)

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(Total for Question 3 = 19 marks)



4 Kasuni studies online.

(a) Which **one** of these is a user-generated reference site?

(1)

- A** Social network
- B** Wiki
- C** VLE
- D** Online work space

(b) Which **one** of these is a method Kasuni could use to avoid plagiarising content?

(1)

- A** Bias check
- B** Copy and paste
- C** Paraphrasing
- D** Efficient search

(c) Describe how the key features of social bookmarking could be used by students completing a research project.

(4)

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(d) Some teachers use OMR to reduce their workload when marking tests.

Describe how OMR works.

(2)

(e) Schools must comply with data protection laws.

Explain why teachers should use a VPN to access files on school servers.

(2)

(f) Kasuni needs to submit her project file online.

Explain why Kasuni compresses her file before uploading it.

(2)

(g) Which **one** of these is a type of software used to compress files.

(1)

- A Backup
- B Utility
- C Security
- D Network



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(h) Discuss the impact of transaction tracking on the information that individuals see online.

(8)

Area with horizontal dotted lines for writing the answer.

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(Total for Question 4 = 21 marks)



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5 Deshan buys a music CD in a store.

(a) Deshan pays with a card using NFC.

Explain why NFC speeds up the payment process.

(2)

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(b) The CD comes with access to a music streaming service.

Describe how streaming works.

(4)

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(c) Describe how the amount of bandwidth available affects Deshan’s experience of streaming.

(3)

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(d) The payment system uses an open source operating system.

(i) State what is meant by the term ‘open source software’.

(2)

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(ii) State **two** functions of an operating system.

(2)

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(Total for Question 5 = 23 marks)

TOTAL FOR PAPER = 100 MARKS



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