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Please check the examination details below before entering your candidate information

Candidate surname	Other names

Pearson Edexcel International GCSE (9–1)

Centre Number | Candidate Number

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

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)

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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)

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(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

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Explanation

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

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

(4)

1 .....

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2 .....

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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)

1 .....

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2 .....

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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)

(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)

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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)

(d) Describe the function of a web browser.

(2)

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

(2)

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

(2)

1

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)

☒ **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)

(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)

1 .....

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2 .....

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(Total for Question 3 = 19 marks)

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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)

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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)

(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)

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

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

(2)

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

(2)

1 .....

2 .....

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(e) Online hackers are a threat to Deshan's data.

List **two other** threats to Deshan's data.

(2)

1 .....

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2 .....

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(f) Evaluate the tools that are available to help individuals stay safe online.

(8)

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(Total for Question 5 = 23 marks)

TOTAL FOR PAPER = 100 MARKS

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