

Please check the examination details below before entering your candidate information

Candidate surname					Other names			
Centre Number					Candidate Number			
<b>Pearson Edexcel</b> <b>International GCSE (9–1)</b>					<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>			
<b>Monday 11 May 2020</b>								
Morning (Time: 1 hour 30 minutes)					Paper Reference <b>4IT1/01R</b>			
<b>Information and Communication Technology (ICT)</b> <b>Paper 1: Written Paper</b>								
<b>You do not need any other materials.</b>							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 on the high street rather than online.

(2)

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(b) Which **one** of these uses a laser to write to the media?

(1)

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

(c) Sachini cannot access Wi-Fi.

Which **one** of these is a type of mobile phone connectivity that Sachini could use to access the Internet?

(1)

- A WLAN
- B GPS
- C PAN
- D GSM

(d) Describe how **two** characteristics of flash memory affect its use.

(4)

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(e) Explain **one** negative impact on the user of decreasing the amount of RAM.

(3)

Negative impact

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Explanation

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(f) Sachini chooses to recycle her old laptop.

Explain **two** ways to dispose of digital devices that would reduce the risk of harm to human health.

(4)

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

(1)

- A** CD-ROM
- B** Hard drive
- C** RAM
- D** SSD

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(h) The laptop can store 64 GiB of data.

Construct an expression to show how many bits are in 64 GiB.

(3)

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(i) Some people cannot afford to go online.

List **two** effects of reduced 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 in which Sachini is at risk of developing repetitive strain injury (RSI).

(2)

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2 .....

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(b) Draw a diagram to show how Sachini can connect her laptop to the Internet.

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

(2)



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(c) Sachini connects her laptop to a local area network (LAN).

Describe **two** benefits of doing this.

(4)

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(d) Describe the function of a search engine.

(2)

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(e) Each time Sachini plays a game on her laptop, she updates the game software.

Explain **two** reasons why Sachini should update the game software.

(4)

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(f) Describe **one** risk to Sachini's system of updating the game software.

(2)

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(g) The laptop uses an SD card reader.

Which **one** of these does this device provide?

(1)

- A Media support
- B Expansion capability
- C Security
- D Connectivity

**(Total for Question 2 = 17 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 protects his data?

(1)

- A WAN
- B WMA
- C WPA
- D WAP

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

(2)

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(iii) State **three** ways that latency can be increased.

(3)

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(b) Describe the function of a file server.

(2)

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(c) Describe **two** drawbacks of using a peer-peer network.

(4)

Drawback 1.....

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Drawback 2.....

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(d) A computer's media access control (MAC) address can be used to identify it on a network.

State **one other** way of identifying a computer on a network.

(1)

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

(1)

- A** It is fixed
- B** It must be changed regularly
- C** It is secure
- D** It is part of an IP address

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

State why Ashan is correct.

(1)

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(g) An inkjet printer forms an image on a page by spraying ink through a nozzle.

Describe how a laser printer forms an image on a page.

(2)

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**(Total for Question 3 = 17 marks)**



**4** Kasuni studies online.

(a) State **one** type of user-generated reference site that Kasuni could use for her studies. (1)

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(b) State what is meant by the term 'plagiarism'. (1)

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(c) Describe how the key features of a virtual learning environment (VLE) could be used by students completing a research project. (4)

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(d) Some teachers use OMR.

Which **one** of these is an example of the use of OMR?

(1)

- A** Setting assignments
- B** Doing research
- C** Backing up work
- D** Taking registers

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(e) Describe how a VPN works.

(3)

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(f) Kasuni creates a password for her student account.  
Her password contains letters and numbers.

State **two other** features of a strong password.

(2)

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(g) Which **one** of these is a type of software used to encrypt files?

(1)

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



(h) Discuss how the availability of goods and services online could affect Sachini's lifestyle. (8)

Area with horizontal dotted lines for writing the answer.

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**(Total for Question 4 = 21 marks)**



5 Deshan buys a computer game.

(a) Deshan pays with a card using NFC.

Explain the risk to Deshan of using NFC.

(2)

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

Explain **two** reasons why the game software may require access to the hard drive.

(4)

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(c) Describe how the speed of the processor affects Deshan’s experience of gaming.

(4)

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(d) The payment system uses a proprietary operating system.

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

(2)

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(ii) Describe how operating systems use memory management.

(2)

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**(Total for Question 5 = 24 marks)**

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**TOTAL FOR PAPER = 100 MARKS**



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