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Please check the examination details below before entering your candida formation

Candidate surname | Other names

Centre Number | Candidate N er

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.
- Good luck with your examination.

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 a t an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

A family uses digital devices in their everyday lives.



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1 Howard buys a tablet computer.

(a) Give **two** types of wireless connectivity that the tablet computer could use.

(2)

1 .....

2 .....

(b) Give **two** types of peripheral storage media that the tablet computer could use.

(2)

1 .....

2 .....

(c) Which **one** of these is required for the tablet computer to connect to the Internet?

(1)

- ☒ **A** GPS
- ☒ **B** ISP
- ☒ **C** LAN
- ☒ **D** NFC

(d) Which **one** of these is found in all computers?

(1)

- ☒ **A** Control software
- ☒ **B** Keyboard
- ☒ **C** Operating system
- ☒ **D** Processor

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(e) Which **one** of these would be used as a desktop replacement computer?

(1)

- ☒ **A** Laptop
- ☒ **B** Mainframe
- ☒ **C** Media Player
- ☒ **D** Server

(f) Describe how tablet computers allow people to work from home.

(2)

(g) A CPU has 16 MiB of cache memory.

Construct an expression to show how many bits are in 16 MiB.

(3)

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(h) Howard sells his old hard disk drive to Steve.

(i) Complete the table by ranking these storage devices in order of their read/write speed.

A) Hard disk drive
B) Optical disk drive
C) Solid state drive

(2)

1 (Fastest)	
2	
3 (Slowest)	

(ii) Describe **two** factors that affect the read/write speed of a hard disk drive.

(4)

1 .....

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2 .....

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(iii) Explain **one** benefit to the environment of buying previously-owned devices.

(2)

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(iv) Which **one** of these is the type of software Howard should use to ma pies of his applications?

(1)

- ☒ **A** Control
- ☒ **B** Office-productivity
- ☒ **C** Project management
- ☒ **D** Utility

(Total for Question 1 = 21 marks)

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2 Judy is researching online.

(a) List **two** types of user-generated reference sites Judy could use.

)

1 .....

2 .....

(b) Judy uses a mobile phone to make a voice call.

Draw a diagram to show the mobile phone's input and output devices required to make the call.

Label each device you use in your diagram.

(3)

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http://britishstudentroom.wordpress.com/

(c) Judy sets file permissions on her online documents.

Which **one** of these is a benefit of doing this?

(1)

- ☒ **A** Improves encryption
- ☒ **B** Increases storage
- ☒ **C** Quicker backup
- ☒ **D** Secures data

(d) Describe how a CAPTCHA test reduces the function of malware.

(2)

(e) Explain **one** positive impact of cloud-based services on learning.

(2)

(f) Describe how mobile broadband can be used to provide access to cloud-based services.

(2)

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(g) Give **one** reason why Judy should use mobile broadband.

(1)

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(h) Explain **one** benefit of using wired connectivity.

(2)

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(Total for Question 2 = 15 marks)

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3 Eunice installs some software on her laptop.

(a) Draw **one** straight line from **each** example of utility software to the correct purpose.

Utility software	Purpose
Compression	Protect from viruses
	Create copies of files
Back-up	Reduce file sizes
	Block IP addresses
Anti-malware	Convert file types

(b) Which **one** of these types of device can have software installed to it?

(1)

- ☒ **A** Memory
- ☒ **B** OMR Reader
- ☒ **C** Processor
- ☒ **D** Storage

(c) Explain **one** benefit to Eunice of updating her software regularly.

(2)

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(d) Eunice is travelling by train.

She connects to the Internet using the train's Wi-Fi connection.

Explain why the Wi-Fi provider blocks video streaming.

(2

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(e) The Internet has provided a wider range of entertainment and leisure opportunities.

One example is video and audio streaming.

State **two other** examples.

(2)

1 .....

.....

2 .....

.....

(f) Eunice changes her laptop's GPS settings.

Which **one** of these statements is true?

(1)

☒ **A** GPS is used by all digital devices

☒ **B** GPS does not use an Internet connection

☒ **C** GPS uses cloud computing

☒ **D** GPS is better if open source software is used

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(g) Eunice writes a blog.

(i) Eunice wants visitors to her blog to see posts that are likely to be relevant em.

Describe how cookies can be used to achieve this.

(4

(ii) In some countries, laws require website owners to obtain 'informed consent' from visitors before using cookies.

Explain why these laws are required.

(2)

(Total for Question 3 = 17 marks)

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4 Hugh sells his music online.

(a) Which **one** of these is a law that protects his work?

- ☒ **A** Computer Misuse Act
- ☒ **B** Copyright, Designs and Patents Act
- ☒ **C** Human Rights Act
- ☒ **D** Data Protection Act

(b) List **three** benefits to Hugh of selling his music online.

(3)

1 .....

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2 .....

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3 .....

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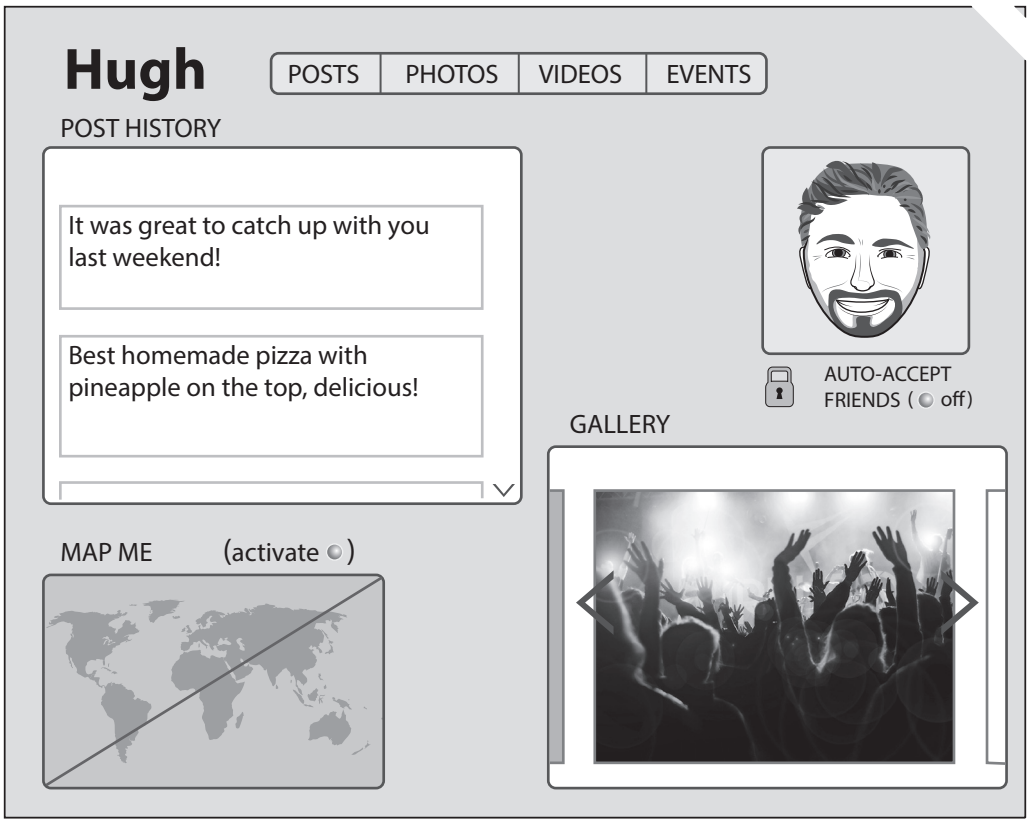
(c) **Figure 1** shows an image of Hugh's social media settings.



(Source: © PAL)

Figure 1

Explain **two** ways Hugh has protected his personal information.

(4)

1 .....

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2 .....

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(d) Hugh is choosing the type of computer he will use to manage the purch nd delivery of audio files to customers.

Explain why an embedded system is a poor choice.

(e) Hugh is working on a musical project.

(i) List **two** key features of sound editing software that Hugh could use to create a song.

(2)

1

2

(ii) Describe **two** key features of project management software that Hugh could use to make sure the project is complete before the deadline.

(4)

1

2

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(f) Hugh uses a desktop computer to write, create and distribute his music.

Discuss the advantages and disadvantages to Hugh of selecting a desktop co er rather than a laptop, smartphone or tablet computer.

In your answer you should consider: components, portability, connectivity, cost and maintenance.

(8)

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(Total for Question 4 = 24 marks)

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5 Hugh creates a website for a band.

(a) Explain **one** drawback to the website users of Hugh reducing the file size of i s used on the website.

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(b) Describe the function of **two** network components that are used to transfer data on the Internet.

(4)

Network component.....

Function.....

.....

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Network component.....

Function.....

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(c) Explain why streaming allows users with limited storage on their devices to listen to the band's music.

(2)

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(d) Describe **one** method that should be used to secure payment data transf between Hugh's server and other computers.

(3)

(e) Describe how WPA is a more secure protocol than WEP.

(2)

(f) Hosted applications have fewer features than local applications.

Explain **one** positive impact on the user experience of reducing the number of features.

(2)

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(g) Evaluate how online communities have impacted on how we socialise.

(8)

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(Total for Question 5 = 23 marks)

TOTAL FOR PAPER = 100 MARKS

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