

Please check the examination details below before entering your candidate information

Candidate surname

Other names

Pearson Edexcel
International GCSE (9-1)

Centre Number

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Candidate Number

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Monday 13 May 2019

Morning (Time: 1 hour 30 minutes)

Paper Reference **4IT1/01R**

Information and Communication Technology
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 ☒.



(Source: © Pearson Asset Library)

- 1 Kiki buys a smartphone.
(a) The smartphone turns itself off when it is dropped.

Describe how the smartphone does this.

(2)

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(b) Smartphones can be connected using wired or wireless methods.

(i) Give **two** disadvantages to Kiki of using a **wired** method to connect to the smartphone.

(2)

1

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2

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(ii) Give **two** disadvantages to Kiki of using a **wireless** method to connect to the smartphone.

(2)

1

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2

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(c) The smartphone uses an SD card.

Which **one** of these does an SD card provide?

(1)

- A** Location data
- B** Connectivity
- C** Storage
- D** Security

(d) The smartphone is an example of a converged device.

State what is meant by the term 'convergence'.

(1)

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(e) The smartphone has a 4 GHz CPU.

Describe how the speed of the processor is measured.

(2)

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(f) The smartphone uses utility software.

State **two** uses for utility software.

(2)

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(g) Explain **one** drawback of using solid state storage.

(2)

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(h) Kiki's smartphone uses an operating system.

Which **one** of these describes an operating system?

(1)

- A** It is more secure than application software
- B** It is controlled by software
- C** It manages memory and resources
- D** It provides open source code

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(i) Kiki watches broadcast television.

Draw a diagram to show how Kiki's television can receive a television broadcast.

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

(4)



(j) Describe how interference could affect Kiki's experience of watching broadcast television.

(2)

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(Total for Question 1 = 21 marks)



2 Zara uses her tablet computer to watch TV online.

(a) Describe the function of a gateway.

(2)

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(b) State **two** drawbacks to Zara of watching online TV.

(2)

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(c) Zara sees the page shown in **Figure 1**.

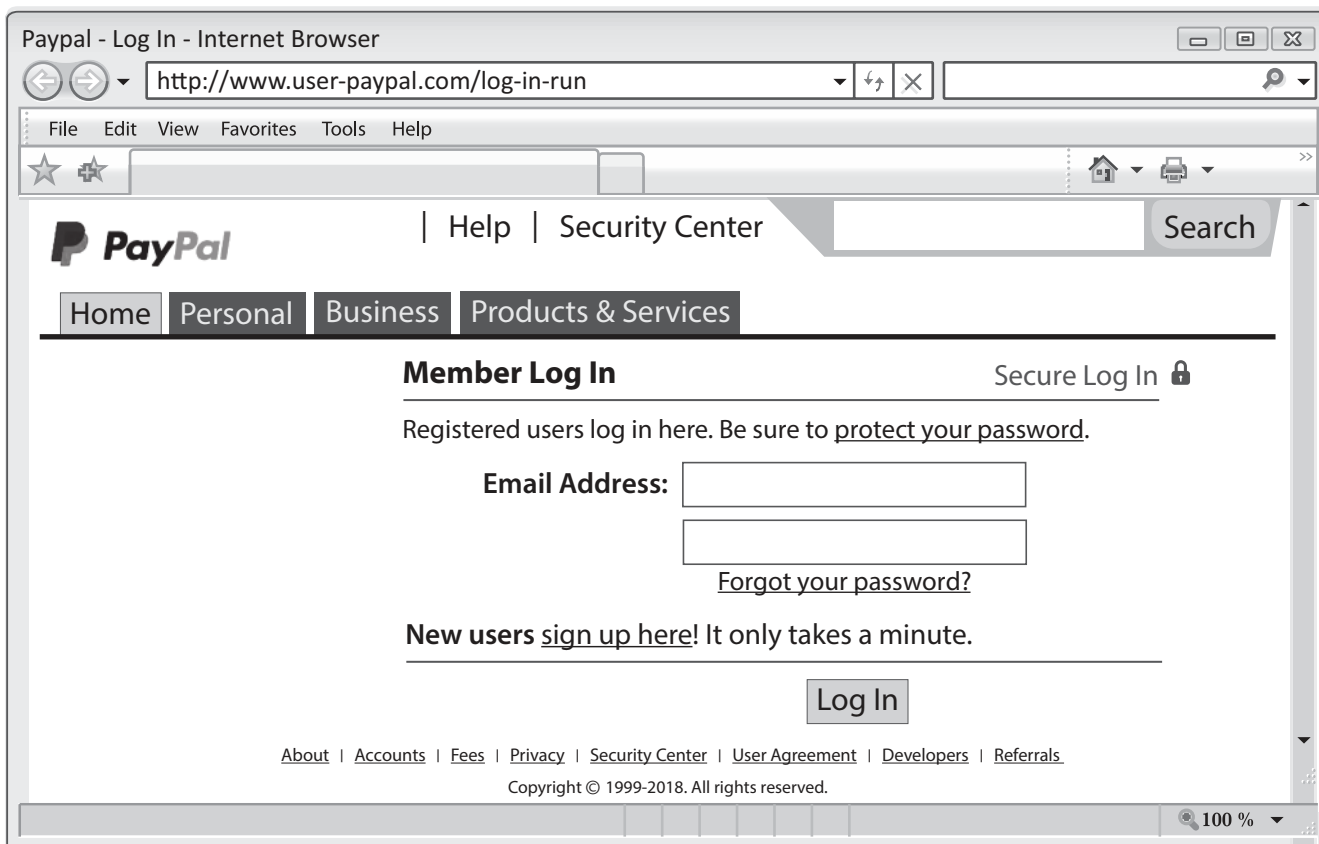


Figure 1

Describe how this page is a risk to Zara.

(4)

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(d) Give **two** drawbacks to Zara of connecting her tablet computer to her television.

(2)

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(e) Zara uses a PIN to unlock her tablet computer.

Describe how a PIN system works.

(3)

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(f) Explain **one** disadvantage of using hosted applications.

(2)

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(g) Explain **one** disadvantage of using locally installed applications.

(2)

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(Total for Question 2 = 17 marks)

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3 Ruwan uses a smartwatch when he exercises.

(a) The smartwatch can connect to a wireless health monitor.

Which **one** of these is a type of wireless connectivity?

(1)

- A Serial
- B Parallel
- C Thunderbolt
- D Bluetooth

(b) The health monitor uses Wi-Fi Direct to transfer data to the smartwatch.

(i) Speed is not a concern. Explain why Wi-Fi Direct is a better choice than infrared for this transfer.

(2)

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(ii) Explain why distance might affect the speed of the transfer.

(2)

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(c) Some data is encrypted.

Describe the purpose of encryption.

(2)

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(d) Ruwan's smartwatch uses GPS.

Describe how GPS works.

(2)

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(e) Some social networking services use GPS data.

Give **two** positive ways in which social network services use GPS data.

(2)

1

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(f) The health monitor stores 3 KiB of data.

Construct an expression to show how many bits are in 3 KiB.

(3)

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(g) Ruwan purchased his smartwatch online.

Describe **two** ways in which transactional data could be used during a purchase.

(4)

1

2

(Total for Question 3 = 18 marks)



4 Ruwan searches online for local sporting events.

(a) Ruwan evaluates the fitness for purpose of the search results.

(i) Complete this table to show how each property can **positively** affect the fitness for purpose of information.

(3)

Property	Positive effect
Relevance	
Age	
Reliability	

(ii) Which **one** of these is another property of information that affects fitness for purpose?

(1)

- A Bias
- B Plagiarism
- C Cost
- D Location

(iii) Which **one** of these affects the ranking of a search result?

(1)

- A Keywords
- B Copyright
- C Accessibility
- D Bookmarks

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(b) Describe how a search engine works.

(4)

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(c) Which **one** of these is used as a payment method?

(1)

- A FTP
- B HTTP
- C NFC
- D VPN

(d) Describe how a firewall can be used to restrict access to a network.

(3)

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(Total for Question 4 = 21 marks)



5 James teaches in a school that uses a local area network and a wide area network.

(a) State what is meant by the term 'wide area network'.

(1)

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(b) Some learners have accessibility needs.

Describe **one** way that ICT systems can be configured to support learners with accessibility needs.

(4)

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(c) Explain why roaming profiles could benefit teachers.

(4)

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(d) Which **one** of these is a benefit of using a client-server network?

(1)

- A** Reduced network traffic
- B** Faster data transfer
- C** Higher bandwidth
- D** Centralised backup

(e) Describe how the victims of cyber-bullying are affected by the anonymity of offenders.

(3)

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(f) The learners use office productivity tools.

Give **two** examples of tasks that could be completed using office productivity tools.

(2)

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(g) Discuss the impact of wikis on learning.

(8)

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(Total for Question 5 = 23 marks)

TOTAL FOR PAPER = 100 MARKS



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