

Write your name here

Surname

Other names

Pearson
Edexcel GCSE

Centre Number

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Candidate Number

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Information and Communication Technology

Unit 1: Living in a Digital World

Monday 14 May 2018 – Morning

Time: 1 hour 30 minutes

Paper Reference

5IT01/01

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 80.
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*
- Questions labelled with an **asterisk** (*) are ones where the quality of your written communication will be assessed
– *you should take particular care on these questions with your spelling, punctuation and grammar, as well as the clarity of expression.*

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.

The Harrison family use technology for work, entertainment and socialising.



(Source: © Hero Images/Getty Images)



P 5 7 0 4 4 A 0 3 2 0

Use this information to answer Question 1(a) and 1(b).

Laptop A		Laptop B	
			
Screen	2560 x 1600	Screen	1920 x 1080
Processor	Quad Core 1.6 GHz	Processor	Quad Core 2.1 GHz
Storage	2 TB	Storage	1 TB
Connectivity	WiFi, Bluetooth	Connectivity	WiFi, Ethernet
RAM	16 GB	RAM	32 GB
Laptop C		Laptop D	
			
Screen	1280 x 720	Screen	1080 x 720
Processor	Quad Core 1.2 GHz	Processor	Dual Core 1.4 GHz
Storage	256 GB	Storage	500 GB
Connectivity	WiFi, Ethernet	Connectivity	WiFi, Ethernet, Bluetooth
RAM	8 GB	RAM	4 GB

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Some questions must be answered with a cross ☐. If you change your mind about an answer, put a line through the box ☐ and then mark your new answer with a cross ☐.

1 Mrs. Harrison is buying a new laptop for work.

(a) (i) Which **one** of these has the largest storage capacity?

(1)

- ☐ Laptop A
- ☐ Laptop B
- ☐ Laptop C
- ☐ Laptop D

(ii) Which **one** of these has the highest resolution screen?

(1)

- ☐ Laptop A
- ☐ Laptop B
- ☐ Laptop C
- ☐ Laptop D

(iii) Which **one** of these loads applications most quickly?

(1)

- ☐ Laptop A
- ☐ Laptop B
- ☐ Laptop C
- ☐ Laptop D

(b) State the type of wired network connectivity used by Laptop D.

(1)

(c) State **two** advantages of using wired network connectivity rather than wireless.

(2)

1

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2

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(d) Laptops are portable devices.

List **three** features of laptops that make them more portable than desktops.

(3)

1

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2

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3

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(e) Mrs. Harrison uses online storage.

Give **two** advantages of storing data online rather than locally.

(2)

1

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2

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(f) State **one** reason why accessing data stored online is slower than accessing data stored locally.

(1)

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(g) Explain **one** reason why hosted apps often have fewer features than locally stored apps.

(2)

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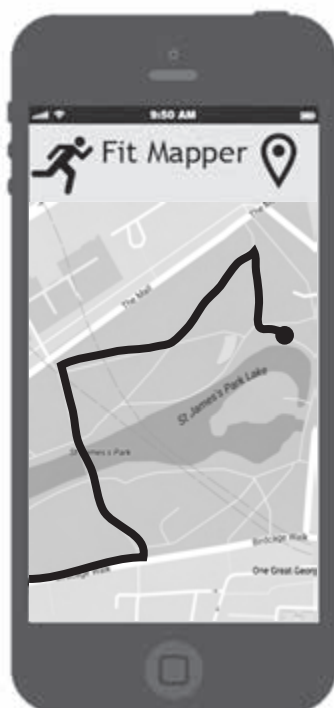
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(Total for Question 1 = 14 marks)



- 2 Mr. Harrison uses an app on his smartphone to monitor his health and fitness.



- (a) Which **one** of these does the app use to receive location data?

(1)

- ☐ A GSM
- ☐ B HTTP
- ☐ C FTP
- ☐ D GPS

(b) The app stores maps locally rather than downloading them as they are needed.

(i) One advantage of storing maps locally is that they load more quickly.

Give **two other** advantages to Mr. Harrison of having maps stored locally.

(2)

1

2

(ii) Give **two** disadvantages to Mr. Harrison of having maps stored locally.

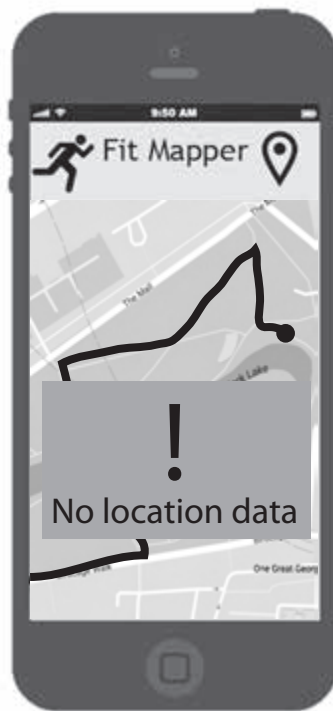
(2)

1

2



(c) The app stops tracking Mr. Harrison's location.



State **one** reason why his smartphone might not be able to receive location data.

(1)

(d) Mr. Harrison joins an online fitness community.

(i) Explain why he is asked to create a password.

(2)



(ii) List **three** features of a strong password.

(3)

1

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(e) Mr. Harrison is asked to complete a challenge response test.
Explain why he is asked to do this.

(2)

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(f) Which **one** of these should be used to enter data into a challenge response test?

(1)

☐ **A** Touchscreen

☐ **B** Printer

☐ **C** Speakers

☐ **D** USB drive

(Total for Question 2 = 14 marks)



3 Kirsty Harrison is 15 years old.
She uses her tablet computer to watch sport online.

(a) (i) Which **one** of these is an **advantage** of using an **official** website to stream a sports event?

(1)

- ☐ A Users can watch from anywhere
- ☐ B Different devices can be used to watch the stream
- ☐ C There are more adverts
- ☐ D Less chance of infection by a computer virus

(ii) State **one** reason why Kirsty should take regular breaks from watching online content.

(1)

(iii) The website owner copyrights the broadcast of the sports event.

Explain why content owners copyright their content.

(3)

(b) Kirsty's tablet loses WiFi connection to the router.

Her tablet contains a SIM card.

Which **one** of these is a type of mobile network that she can use?

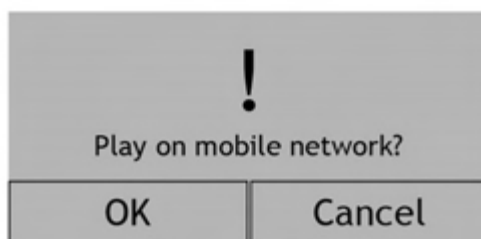
(1)

- ☐ A Powerline
- ☐ B HSPA
- ☐ C ADSL
- ☐ D Ethernet



- (c) Kirsty uses the mobile network to connect to the internet.

She sees this message on her tablet.



Explain why she receives this message on her tablet.

(3)

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- (d) Kirsty uses a social network to discuss the sports event.

She creates a profile.

- (i) Give **one** way Kirsty can control who views her profile.

(1)

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- (ii) State **three** ways in which Kirsty can personalise her profile.

(3)

1

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2

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3

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(e) Kirsty communicates using social networks.

Give **two other** ways she could communicate online.

(2)

1

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2

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(f) Some of Kirsty's friends do not have digital devices.

Give **one** reason why some people do not have access to ICT.

(1)

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(Total for Question 3 = 16 marks)



4 Jarno is 17 years old.

He uses his games console to play online games.

(a) Which **one** of these does Jarno need to play online games?

(1)

- ☐ **A** Modem
- ☐ **B** USB ports
- ☐ **C** Portability
- ☐ **D** User interface

(b) Latency affects Jarno's gaming experience when he plays against other online users.

(i) Explain how high latency affects his gaming experience.

(2)

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(ii) State **two** ways that latency can be reduced.

(2)

1

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(c) Jarno has an online gaming profile.

He wants to play with gamers who have similar interests to him.

Describe how the software makes this possible.

(2)

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(d) Jarno uses a controller to enter text in the game.



Which **one** of these would be a better choice for entering text?

(1)

- ☐ **A** Mouse
- ☐ **B** Storage
- ☐ **C** Scanner
- ☐ **D** Keyboard

(e) Jarno pays to download some games. He also buys games on the high street.

- (i) State **two advantages** to Jarno of downloading games rather than buying them on the high street.

(2)

1

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2

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- (ii) State **two disadvantages** to Jarno of downloading games rather than buying them on the high street.

(2)

1

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2

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*(f) Many people use their smartphones for gaming.

Discuss the advantages and disadvantages of using a smartphone rather than a games console for gaming.

(6)

(Total for Question 4 = 18 marks)



5 The Harrison family use VoIP to communicate with friends and family abroad.

(a) Which **one** of these is used with VoIP?

(1)

- ☐ **A** Projector
- ☐ **B** Mouse
- ☐ **C** Microphone
- ☐ **D** Infrared

(b) State **two** benefits of using VoIP rather than a mobile phone to communicate with others.

(2)

1

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2

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(c) 91% of 16-24 year olds use smartphones to go online.

21% of 65-74 year olds use smartphones to go online.

(Source: Ofcom, 2016)

Explain **one** reason why fewer 65-74 year olds than 16-24 year olds use smartphones to go online.

(2)

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(d) The quality of VoIP calls depends on bandwidth.

Which **one** of these describes bandwidth?

(1)

- ☐ **A** The security of the data
- ☐ **B** The number of computers that can be connected
- ☐ **C** The amount of data that can be transmitted per second
- ☐ **D** The frequency of the signal

(e) The choice of connectivity can cause low bandwidth.

(i) Give **two other** causes of low bandwidth.

(2)

1

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2

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(ii) Which **one** of these would create the **slowest** network?

(1)

- ☐ **A** Bluetooth
- ☐ **B** WiFi
- ☐ **C** Powerline
- ☐ **D** Fibre optic

(f) Describe how data can be secured when it is transmitted online.

(3)

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*(g) Discuss the challenges of preventing unacceptable behaviour in online communities.

(6)

Area for writing the answer to Question 5(g). The area contains horizontal dotted lines for writing.

(Total for Question 5 = 18 marks)

TOTAL FOR PAPER = 80 MARKS



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