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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

Wednesday 17 May 2017 - 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.**

Amy uses digital devices to listen to music and to watch movies.





She is buying new devices for her bedroom.



(Source: [www.flickr.com/photos/lorenkerns/14216838764/in/album-72157644737007744](http://www.flickr.com/photos/lorenkerns/14216838764/in/album-72157644737007744))



Use this information to answer Question 1(a)

Smart TV A		Smart TV B	
			
Screen	Full HD	Screen	Full HD 3D
Connectivity	WiFi	Connectivity	USB 3.0
Energy consumption per year	100 kWh	Energy consumption per year	200 kWh
Tuner	Twin Satellite HD	Tuner	Satellite HD
Smart TV C		Smart TV D	
			
Screen	4K	Screen	HD Ready
Connectivity	HDMI	Connectivity	SCART
Energy consumption per year	150 kWh	Energy consumption per year	75 kWh
Tuner	Freeview HD	Tuner	Freeview

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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 Amy wants to buy a new smart TV.

(a) (i) Which **one** of these has the best screen resolution?

(1)

- Smart TV A
- Smart TV B
- Smart TV C
- Smart TV D

(ii) Which **one** of these would use the least electricity?

(1)

- Smart TV A
- Smart TV B
- Smart TV C
- Smart TV D

(iii) Which **one** of these provides wireless connectivity?

(1)

- Smart TV A
- Smart TV B
- Smart TV C
- Smart TV D

(b) Which **one** of these is a benefit of using an SD card?

(1)

- A** It provides fast internet access
- B** It is easy to expand storage
- C** It connects to peripherals
- D** It is multifunctional

(c) A smart TV can be connected to a router using a USB connection.

State **one other** type of connectivity that could be used to connect a smart TV to a router.

(1)



(d) Amy streams a video to her smart TV.

Give **two** ways in which streaming is different from downloading.

(2)

1 .....

2 .....

(e) Amy can share the videos she likes with her friends.

List **two** types of online community that she could use to do this.

(2)

1 .....

2 .....

(f) Amy can use the internet to subscribe to online content.

Give **three** online payment methods that Amy could use.

(3)

1 .....

2 .....

3 .....

(g) Devices can connect using wired or wireless methods.

Explain **one** benefit of wireless connectivity.

(2)

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**(Total for Question 1 = 14 marks)**



2 Amy stores movies and photos on her smartphone.

(a) List **two** types of storage that she could use with her smartphone.

(2)

1 .....

2 .....

(b) Amy adds **16 GB** of storage to her smartphone.

Part of the specification of her smartphone is shown here:

Camera quality	File size	Number of photos
8 MP	2 MB	

(i) Calculate the **maximum** number of photos she could keep on the 16 GB of additional storage. Show your working.

(2)

(ii) State **one** camera setting that Amy could change to reduce the file size of a photo.

(1)

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(c) Amy has many friends.

She uses email to share her photos with them.

Which **one** of these is used by some routers to send email to the internet?

(1)

- A** USB
- B** Bluetooth
- C** ADSL
- D** GPS

(d) (i) Explain **one** drawback of using email to share photos.

(2)

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(ii) Amy decides not to use email.

Describe **one other** method she could use to share her photos.

(2)

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(e) Amy sets up an online profile.

(i) State **one** privacy setting that Amy should check before using her online profile.

(1)

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(ii) Which **one** of these is a feature of a strong password?

(1)

- A** Has fewer than four characters
- B** Includes a mixture of upper and lower case letters
- C** Uses personal information
- D** Contains only numbers

(f) A friend 'tags' Amy in a photo.



In this photo:

Amy

(Source: [www.flickr.com/photos/lorenkerns/14216855064/in/album-72157644737007744](http://www.flickr.com/photos/lorenkerns/14216855064/in/album-72157644737007744))

(i) Which **one** of these is a benefit of 'tagging'?

(1)

- A** Amy can stream photos to her TV
- B** Amy can get higher quality photos
- C** Amy can group photos by date
- D** Amy can be alerted when photos of her are posted

(ii) State **one other** feature of a social network that Amy could use to communicate with friends.

(1)

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**(Total for Question 2 = 14 marks)**



3 Amy collaborates with her friends to edit a video.

(a) (i) Which **one** of these could she use to collaborate with her friends?

(1)

- A User interface
- B Search engine
- C Hosted application
- D Transactional data

(ii) Give **two** advantages of working collaboratively.

(2)

1 .....

2 .....

(iii) Explain why working collaboratively may mean that Amy and her friends take longer to edit the video.

(2)

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(b) Amy uses her tablet computer to watch the video.

State **three** features of a tablet computer that make it a multifunctional device.

(3)

1 .....

2 .....

3 .....



(c) Amy's tablet computer does not have an internet connection.

Describe how she could use her smartphone to give her tablet computer access to the internet.

(3)

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(d) Amy's tablet computer is password-protected.

List **two other** user interface features that digital devices use to prevent unauthorised access.

(2)

1 .....

2 .....

(e) Amy uses proprietary software on her tablet computer.

(i) Explain **one** advantage of using proprietary software rather than open source software.

(2)

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(ii) Which **one** of these is a disadvantage of using proprietary software rather than open source software?

(1)

- A** Proprietary software can only be accessed with a password
- B** Proprietary software can only be used on proprietary systems
- C** Proprietary software is usually more expensive
- D** Proprietary software can only be used with an internet connection

**(Total for Question 3 = 16 marks)**



4 Amy's parents are choosing a new Internet Service Provider (ISP).

(a) They compare these ISPs:

ISP name	Type	Bandwidth	Data allowance
GreatNet	3G	17 Mbps	25 GB
NextNet	Fibre	100 Mbps	10 GB
BestNet	ADSL	38 Mbps	50 GB
QuickNet	4G	50 Mbps	15 GB

(i) NextNet provides a bandwidth of 100 Mbps.

Which **one** of these is Mbps a measure of?

(1)

- A Storage size
- B Latency
- C Download speed
- D Processor speed

(ii) Amy's family choose BestNet because they use 'on demand' services on their new TV.

Explain why BestNet is a better choice than NextNet.

(2)

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(b) State **two** reasons why some people **cannot** access the internet.

(2)

1 .....

2 .....



(c) Amy's family use a media server on their home network.

Describe the purpose of a media server.

(2)

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(d) The family's home network includes a firewall.

Which **one** of these is a firewall used for?

(1)

- A** Deleting data from a network
- B** Restricting access to a network
- C** Encrypting network data
- D** Collecting transactional data

(e) Spyware is a threat to Amy's data.

(i) Describe how spyware is a threat to her data.

(2)

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(ii) List **two other** types of online threat to Amy's data.

(2)

1 .....

2 .....



\*f) Amy thinks that using the internet improves how she socialises.

Make a reasoned argument to support this view.

(6)

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(Total for Question 4 = 18 marks)



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5 Amy's family use many online services.

(a) (i) Explain why online banking services often use HTTPS.

(3)

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(ii) List **two** services to customers that banks provide online.

(2)

1 .....

2 .....

(iii) State **one** service to customers that banks **cannot** provide online.

(1)

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(b) Explain why customers' use of digital devices has changed the way that organisations operate.

(3)

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(c) Explain why access to the internet should be equally available.

(3)

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\***(d)** Many employees use the internet for work.

Discuss the impact of the use of the internet on how people work.

**(6)**

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**(Total for Question 5 = 18 marks)**

**TOTAL FOR PAPER = 80 MARKS**



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