

Write your name here

Surname

Other names

Centre Number

Candidate Number

Edexcel GCSE

Information and Communication Technology

Unit 1: Living in a Digital World

Thursday 6 June 2013 – 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.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

P41776A

©2013 Pearson Education Ltd.

1/1/1/1



PEARSON

BLANK PAGE



Answer ALL questions.

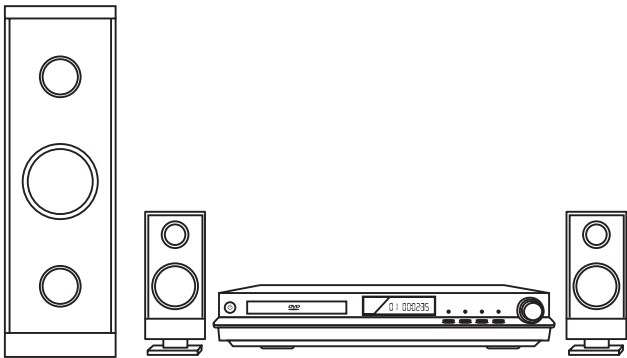
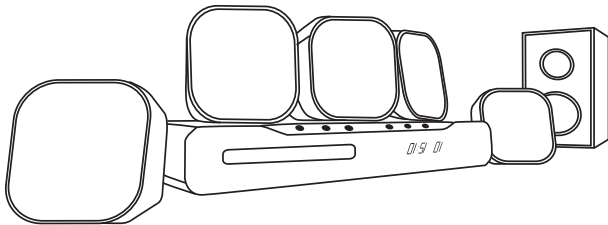
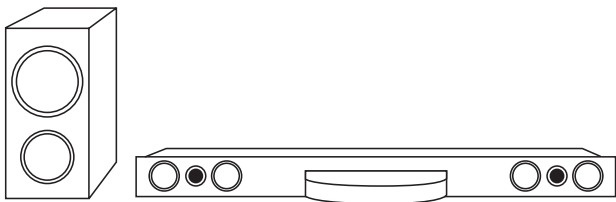
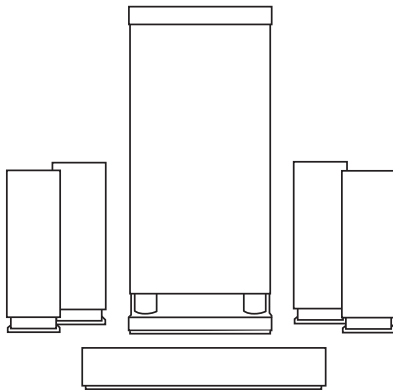
Alex and Karen have two children, Henry and Jacob.
They use digital devices in their daily lives.



(Source: © Getty Images)



Use this information to answer Question 1(a).

Home entertainment system A		Home entertainment system B	
			
Radio	Internet Radio	Radio	DAB
Connectivity	WiFi	Connectivity	Powerline Network
MP3 quality	320 kbit/s	MP3 quality	128 kbit/s
Disc support	DVD-RW	Disc support	Blu-ray
Internal storage	160 GB	Internal storage	None
External storage	SD Memory Card	External storage	USB
Home entertainment system C		Home entertainment system D	
			
Radio	FM	Radio	FM/AM
Connectivity	Ethernet	Connectivity	USB
MP3 quality	160 kbit/s	MP3 quality	256 kbit/s
Disc support	CD	Disc support	DVD
Internal storage	None	Internal storage	None
External storage	None	External storage	USB



Some questions must be answered with a cross in a box ☒.

Mark only one answer for each question.

If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

1 Alex wants to buy a home entertainment system.

(a) (i) Which **one** of these has wireless connectivity?

(1)

- Home entertainment system A
- Home entertainment system B
- Home entertainment system C
- Home entertainment system D

(ii) Which **one** of these provides the best MP3 quality?

(1)

- Home entertainment system A
- Home entertainment system B
- Home entertainment system C
- Home entertainment system D

(iii) Which **one** of these has the highest storage capacity?

(1)

- A** DVD-RW
- B** Blu-ray
- C** CD
- D** DVD

(b) Alex goes to a high street shop to buy a home entertainment system.

Give **one** advantage of shopping in the high street rather than online.

(1)

.....

.....



(c) Alex cannot use the shop's WiFi to access the internet.

Name **one** type of mobile phone connectivity that Alex could use to access the internet from his smartphone.

(1)

(d) Alex buys home entertainment system A.

When he takes it home, he connects it to his wireless network and enters the network key.

What is a network key used for?

(1)

- A** To make sure the connection is always on
- B** To increase the connection speed
- C** To reduce the bandwidth
- D** To allow authorised access

(e) Alex listens to internet radio on his home entertainment system.

(i) Give **one** advantage to Alex of using internet radio, rather than FM/AM radio.

(1)

(ii) Alex records the radio show. He wants to transfer the recording to his laptop.

Give **two** ways, other than WiFi, of transferring the recording.

(2)

1

.....

2

.....

(f) Alex wants to email the recording to a friend.

Name the legislation that makes this illegal.

(1)

.....

.....



(g) Alex can store recordings locally or online.

One advantage of local storage is that he can access recordings without an internet connection.

Give **two** other advantages of using **local** storage rather than online storage.

(2)

1

.....

2

.....

(h) Alex takes his old home entertainment system to the shop for recycling.

Give **two** reasons why the shop offers to do this.

(2)

1

.....

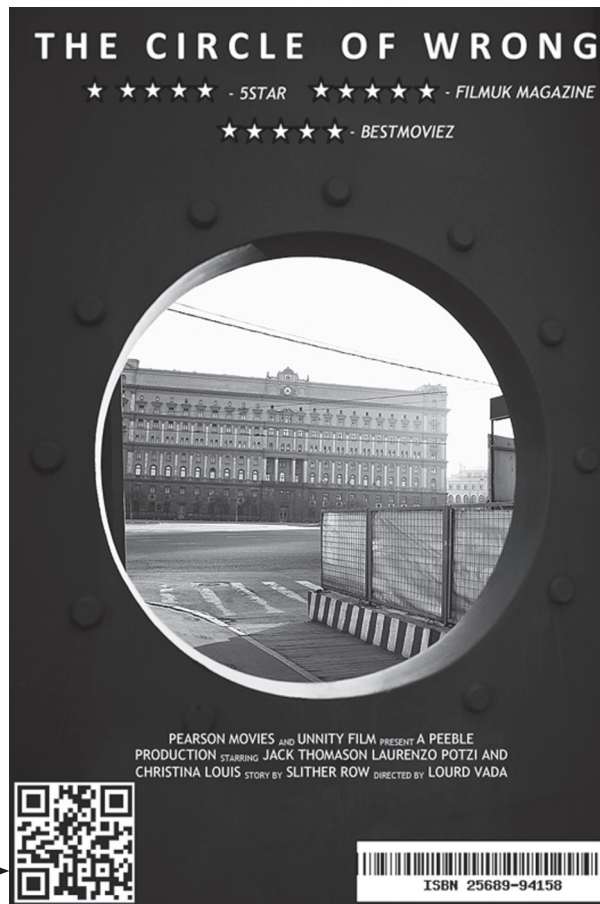
2

.....

(Total for Question 1 = 14 marks)



- 2 Karen is shopping in the high street. She wants to buy a DVD.
(a) She chooses a DVD with this QR code on the packaging.



QR Code

- (i) Which **one** of these smartphone features would she use to input the QR code? (1)
- A Touchscreen
 - B Camera
 - C Infra-red sensor
 - D Accelerometer

- (ii) Karen's smartphone has a good internet connection.

State why this is important when she accesses web content.

(1)

.....

.....



(iii) Online hackers are a threat to the data on Karen's smartphone.

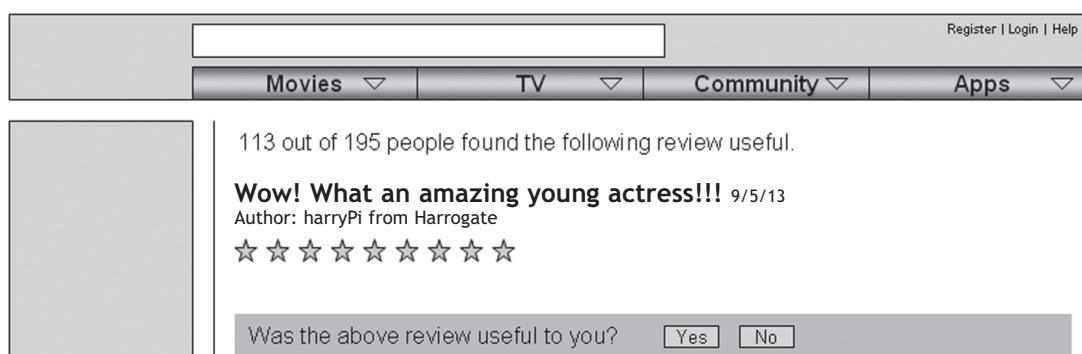
List **two** other threats to Karen's data.

(2)

1

2

(b) Karen reads a review of the DVD on a forum.



Forum users can rate reviews.

Describe why the forum allows users to rate other people's reviews.

(2)

.....

.....

.....

(c) A forum is a type of online community.

List **two** other types of online community.

(2)

1

2



(d) Karen registers with the forum.

(i) Give **one** benefit to **Karen** of registering with the forum.

(1)

(ii) Karen is asked to provide her name when registering with the forum.

List **three** other pieces of information Karen might be asked to provide.

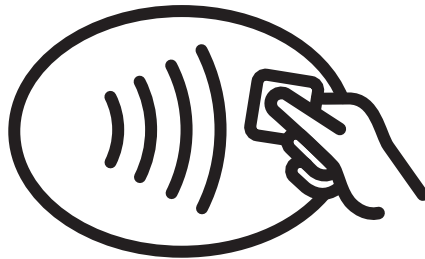
(3)

1

2

3

(e) Karen pays for the DVD using Near Field Communication (NFC).



Explain how NFC speeds up the payment process.

(2)

(Total for Question 2 = 14 marks)



BLANK PAGE



3 Karen and Alex are using their new home entertainment system.

(a) The home entertainment system uses wireless speakers.

(i) Give **one** way this improves the family's health and safety.

(1)

(ii) Give **one** benefit of using WiFi, rather than Bluetooth, to carry the wireless speaker signal.

(1)

(b) The home entertainment system has only one HDMI input.

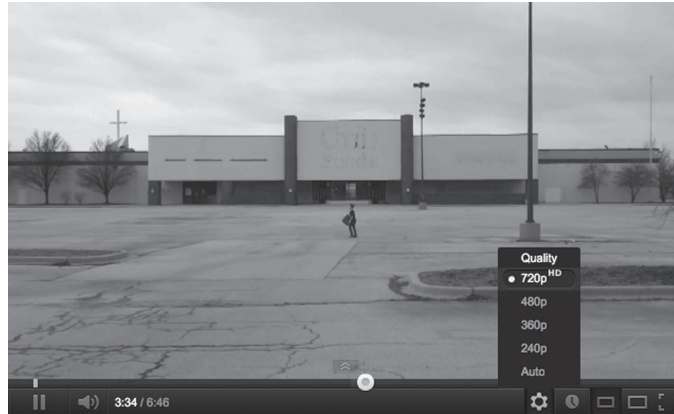
Which **one** of these devices could Karen use to connect multiple HDMI inputs to the home entertainment system?

(1)

- A** Switch
- B** Splitter
- C** Router
- D** Docking system



(c) Alex watches videos online in high definition.



(Source: Bag to the Bone © TheSchwartzCaster,
<http://www.youtube.com/watch?v=F3VP1iczsgM> (2012))

Explain why Alex is also given the option to watch videos in standard definition.

(2)

.....

.....

.....

.....

(d) Which **one** of these limits the number of videos Alex can download to his hard drive?

(1)

- A** User interface
- B** Energy consumption
- C** Portability
- D** Storage capacity

(e) State **one** benefit to **video companies** of using the internet to distribute videos.

(1)

.....

.....

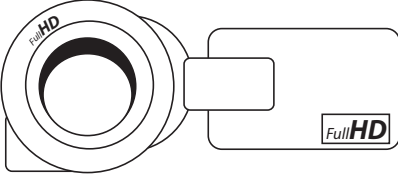
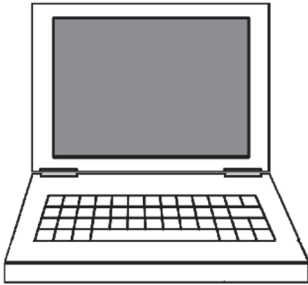
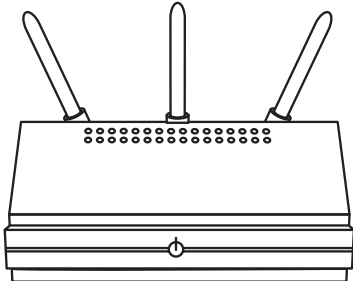


(f) Which **one** of these is used to transfer data across the internet?

(1)

- A HTTP
- B HDMI
- C CD
- D GSM

(g) Alex wants to add a video to his blog using these devices.

Digital camcorder	Laptop	Router
		
Firewire ✓	Firewire ✓	Firewire ✗
WiFi ✗	WiFi ✓	WiFi ✓
ADSL ✗	ADSL ✗	ADSL ✓

(i) Describe how he would do this, identifying the devices and connectivity he would use.

(3)

.....

.....

.....

.....

.....

.....

.....



(ii) Alex adds GPS data to his video before he uploads it to his blog.

Describe how other online services could make use of this data.

(2)

.....

.....

.....

.....

(h) Alex uses online applications to edit his videos.

(i) Give **one advantage** of using online applications to edit videos, rather than locally installed software.

(1)

.....

.....

(ii) Give **two disadvantages** of using online applications to edit videos, rather than locally installed software.

(2)

1

.....

2

.....

(Total for Question 3 = 16 marks)



4 Alex needs to contact his bank.

(a) Which **one** of these is Alex most likely to use?

(1)

- A Web conference
- B Blog
- C Webmail
- D Wiki

(b) Alex enters a password to access his bank account.

Which **one** of these is the strongest password?

(1)

- A a\$5w0aq56
- B Alex1977
- C Pa55word
- D password



(c) Alex receives this email.

From: customer_payments@fr33mail.com
Subject: Canceled transaction - Open within 5 mins of receiving
Date: May 24 2013 11:30:33 GMT+03:00
To: Account Holder

Dear Account Holder,
I need to confirm your account details. The transfer (ID:869118552344), sent from your account, was canceled by The Payment Authorization Center.

The account details on file are:
Account Number: 8621362 **Bank Code:** 78-26-54

Rejected transfer	
Transaction ID:	86911855
Reason of rejection	See details in the report below
Transaction Report	Report 86911855.pdf.exe (PDF)

13150 Sunset Drive, Suite 1000 Lickley, CA 20171, USA
2013 - The Payment Authorization Center.

(i) Identify **three** items in the email that may cause Alex to be concerned.

(3)

1

2

3

(ii) Give **two** actions Alex should take after receiving this email.

(2)

1

2



(d) Email provides users with a way to send messages quickly.

Give **one** other benefit of using email.

(1)

.....

.....

(e) Alex buys goods online.

Explain how the 'digital divide' affects some people's ability to do this.

(4)

.....

.....

.....

.....

.....

.....

.....

.....

.....



*f) 'ICT has improved banking and other financial services.'

Make a reasoned argument to support this statement.

(6)

Area with horizontal dotted lines for writing the answer.

(Total for Question 4 = 18 marks)



BLANK PAGE



5 Alex and Karen have two young children. Henry is 6 years old and Jacob is 4 years old.

(a) Which **one** of these would help to keep Henry and Jacob safe online?

(1)

- A Spyware
- B Filter
- C RSS Feed
- D Viral video

(b) Henry uses apps on a tablet computer.



(Source: adapted from © Lisa Yarost, http://www.flickr.com/photos/lisa_yarost/2159594350/sizes/m/in/photostream/ (2008))

Explain why tablet computers may be easier to use than laptops for young children.

(2)

.....

.....

.....

.....

(c) Henry buys an app by accident.

State **one** action Alex and Karen could take on their online app shop account to prevent this from happening.

(1)

.....

.....



(d) Karen limits the time that Henry and Jacob spend using digital devices.

Explain why Karen does this.

(2)

.....

.....

.....

.....

(e) Alex plays games on a console.

Explain why game graphics are often better on a games console than a tablet computer.

(2)

.....

.....

.....

.....

(f) Explain how copyright law benefits 'gamers'.

(3)

.....

.....

.....

.....

.....

.....

.....

(g) Games often display adverts that use transactional data.

State **one** benefit to **advertisers** of using transactional data.

(1)

.....

.....



BLANK PAGE

Every effort has been made to contact copyright holders to obtain their permission for the use of copyright material. Edexcel, a product of Pearson Education Ltd. will, if notified, be happy to rectify any errors or omissions and include any such rectifications in future editions.

