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Pearson
Edexcel GCSE

Centre Number

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Information and Communication Technology

Unit 1: Living in a Digital World

Wednesday 13 May 2015 – 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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PEARSON

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Answer ALL questions. Write your answers in the spaces provided.

Sarah is a photographer. She works at her studio and on the move.
She uses digital devices for her photography business and hosts her own blog.



Use this information to answer Question 1 (a).

| Desktop A | | Desktop B | |
|---|-------------------|--|-------------------|
|  | |  | |
| Media support | DVD-R | Media support | Memory Card |
| Video output | 1024 x 768 | Video output | 1600 x 900 |
| Processor | 900 MHz | Processor | 2.7 GHz |
| Internal storage | 100 GB | Internal storage | 500 GB |
| RAM | 512 MB | RAM | 6 GB |
| Desktop C | | Desktop D | |
|  | |  | |
| Media support | None | Media support | SD Card |
| Video output | 1920 x 1080 | Video output | 2560 x 1440 |
| Processor | 3.2 GHz dual-core | Processor | 3.0 GHz quad-core |
| Internal storage | 2 TB | Internal storage | 1 TB |
| RAM | 1 GB | RAM | 8 GB |



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 Sarah wants a new desktop computer.

(a) (i) Which **one** of these computers has the most RAM?

(1)

- Desktop A
- Desktop B
- Desktop C
- Desktop D

(ii) Which **one** of these computers would allow Sarah to store her photographs on an optical disk?

(1)

- Desktop A
- Desktop B
- Desktop C
- Desktop D

(iii) Which **one** of these computers provides the highest quality video output?

(1)

- Desktop A
- Desktop B
- Desktop C
- Desktop D

(b) Sarah's current computer has low screen resolution.

State **one** health risk of using a computer with low screen resolution.

(1)

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.....



(c) Sarah uses her computer to edit a photograph.

(i) She upgrades the graphics card to improve the screen resolution of her computer.

List **two other** features that could be upgraded to make it easier to edit photographs.

(2)

1

2

(ii) Which **one** of these is a peripheral device that could be used to edit a photograph?

(1)

- A** Memory card
- B** Mouse
- C** Printer
- D** USB port

(d) List **three** wired methods of connecting a peripheral device to a computer.

(3)

1

2

3

(e) Give **one** disadvantage of storing photographs locally rather than online.

(1)

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(f) Sarah uses a router in her studio.

(i) State the purpose of a router.

(1)

(ii) Sarah uses a password to access her router.

Give **two** features of a strong password.

(2)

1

2

(Total for Question 1 = 14 marks)



2 (a) Sarah uses an online calendar.

List **three** advantages to Sarah of using an online calendar, rather than a local one.

(3)

1

2

3

(b) Sarah wants to share hyperlinks with her colleagues.

(i) Which **one** of these online communities would be **most** appropriate for this?

(1)

- A** Virtual world
- B** Social bookmarking
- C** Forum
- D** Microblog

(ii) Which **one** of these allows Sarah to organise hyperlinks?

(1)

- A** Downloading
- B** Posting
- C** Tagging
- D** Liking

(c) Sarah uses a keyword search to find an image file.

(i) Explain how the choice of appropriate keywords affects the results of the search.

(2)

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She filters the results by Date.

(ii) List **three** other filters that Sarah could use.

(3)

1

2

3

(d) Sarah shares her computer with a colleague.

They each have a user account.

Which **one** of these actions should Sarah take to prevent her colleague from accessing her information?

(1)

- A** Close her web browser
- B** Turn off Bluetooth
- C** Log out
- D** Use a secure internet connection

Sarah uses cloud computing.

(e) Give **one** example of a service provided by cloud computing.

(1)

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(f) Give **two** ways in which cloud computing affects the environment.

(2)

1

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2

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(Total for Question 2 = 14 marks)



3 Sarah travels on a train to a photo shoot.

She tries to use her smartphone to check her email.

She sees this:



(a) (i) Which **one** of these is a WiFi security protocol?

(1)

- A IMAP
- B HTTP
- C POP
- D WPA

(ii) Describe how encryption keeps data secure.

(2)

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(b) Sarah uses an unsecured WiFi network to check her email.

Describe **one** risk of using an unsecured WiFi network.

(2)

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(c) Sarah's smartphone vibrates when she uses the keypad.

Which **one** of these is improved by the vibrate feature?

(1)

- A** Challenge response
- B** Authentication
- C** Performance
- D** User interface



(d) Sarah receives an email, which contains a hyperlink.

(i) Before she follows the hyperlink, Sarah updates her security software.
Explain why she does this.

(4)

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(ii) List **two** types of security software.

(2)

1

2



(e) The WiFi network is shared with other train passengers.

Sarah tries to access an online video streaming service.

She sees this screen:



(i) Explain why the WiFi network provider blocks video streaming.

(3)

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(ii) Sarah cannot use WiFi.

Identify **one** other type of mobile phone connectivity that she could use to stream video to her smartphone.

(1)

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(Total for Question 3 = 16 marks)



4 Sarah uploads this photograph to her blog.



(Source: 'Sitting in the Air' by Martin Hricko: <http://500px.com/photo/236667005>)

(a) Sarah's photograph contains GPS data.

(i) Which **one** of these statements is true?

(1)

- A** All digital devices use GPS
- B** GPS does not use Sarah's internet connection
- C** GPS uses cloud computing
- D** GPS works better with open source software

(ii) Explain how the use of GPS data could impact on the privacy of individuals.

(2)

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(b) Sarah compresses the image to reduce its file size.

Describe how this improves a smartphone user's experience of Sarah's blog.

(2)

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(c) Visitors to Sarah's blog can 'like' a photograph.

This is a social networking feature.

Describe how this feature helps Sarah to promote her photographs.

(2)

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(d) Sarah's blog uses cookies.

In 2012, a new law required websites to obtain 'informed consent' from visitors before using cookies.

Explain why this law was required.

(3)

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(e) Sarah's blog has an RSS feed.

Describe what service the RSS feed provides to the users of Sarah's blog.

(2)

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*(f) "Blogging gives you the right to say any thing, any time, in any way"

(Source: <http://www.blogherald.com/2007/03/27/blogging-freedom-of-speech-can-you-really-say-whatever-you-want/>)

Discuss the legal, ethical and moral responsibilities and challenges associated with digital communication.

(6)

(Total for Question 4 = 18 marks)



5 Sarah sells her photographs online.

(a) Name the law that protects her work.

(1)

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(b) List **three** benefits to Sarah of selling her photographs online.

(3)

1

2

3



(c) Customers pay using a third-party payment service.

Payments are secure.

(i) State **one other** benefit to **Sarah** of accepting payments using a third-party payment service.

(1)

(ii) List **three** ways that web browsers display to customers that payments are secure.

(3)

- 1
- 2
- 3

(d) Sarah wants customers to see photographs that are likely to be relevant to them.

Describe how transactional data can be used to achieve this.

(4)

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