

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

Wednesday 14 May 2014 – 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 ►

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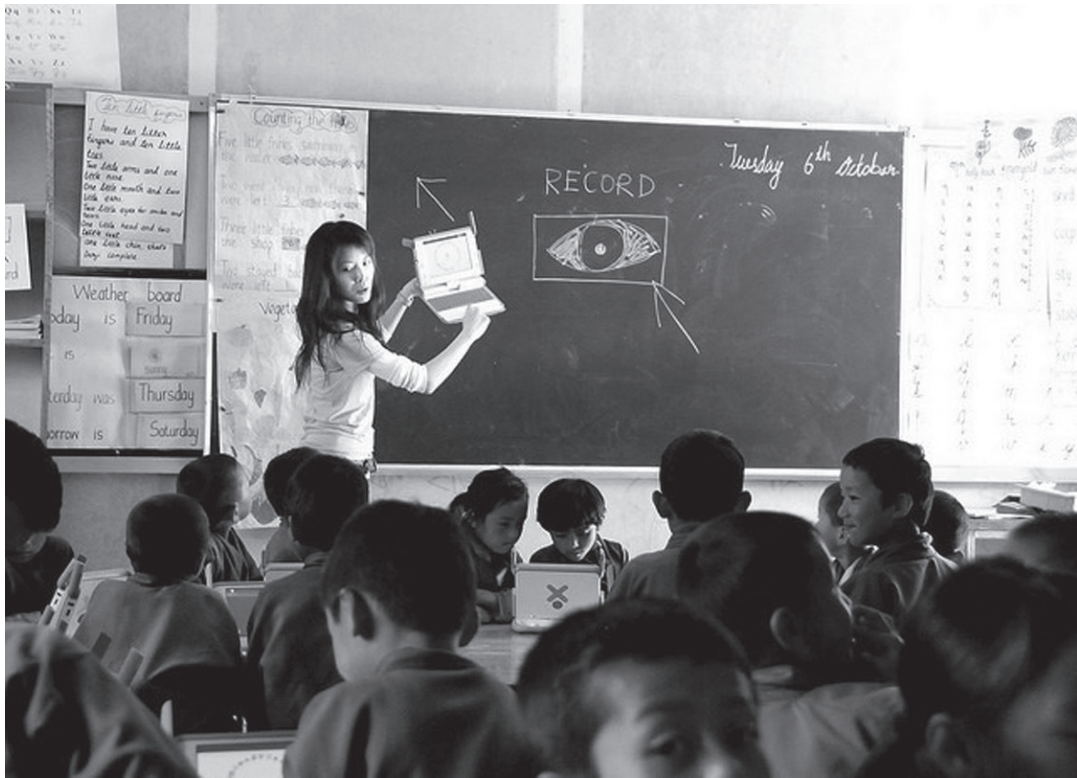
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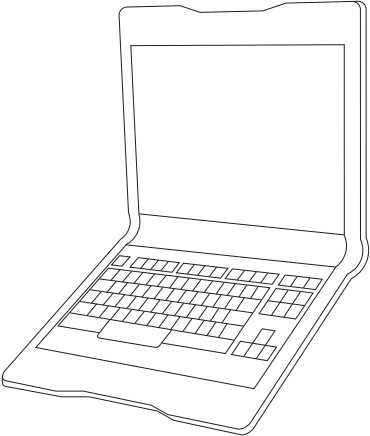
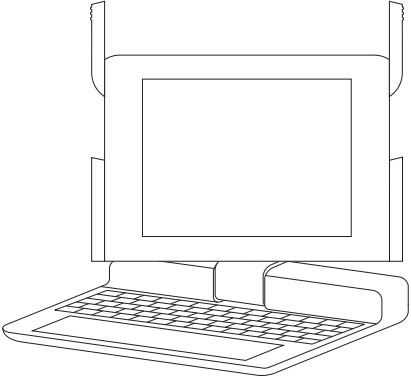
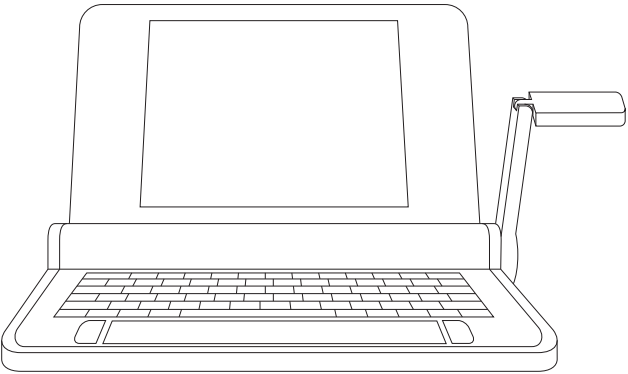
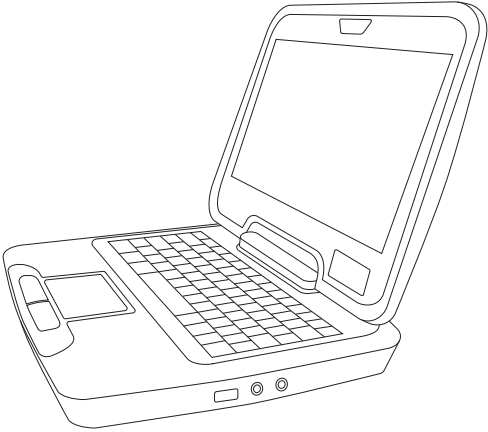


**Answer ALL questions. Write your answers in the spaces provided.**

Tahira works as a teaching assistant at a school in a developing country.  
The school has asked her to help students use digital devices in the classroom.



Use this information to answer Question 1(a).

Computer A		Computer B	
			
<b>Network connectivity</b>	Ethernet	<b>Network connectivity</b>	Ethernet/WiFi
<b>Video output</b>	1600x900	<b>Video output</b>	1024x768
<b>Processor</b>	1.6 GHz	<b>Processor</b>	700 MHz
<b>Internal storage</b>	8 GB	<b>Internal storage</b>	512 MB
<b>RAM</b>	2 GB	<b>RAM</b>	256 MB
Computer C		Computer D	
			
<b>Network connectivity</b>	None	<b>Network connectivity</b>	WiFi/Bluetooth
<b>Video output</b>	800x600	<b>Video output</b>	1280x600
<b>Processor</b>	16 MHz	<b>Processor</b>	1.2 GHz
<b>Internal storage</b>	256 MB	<b>Internal storage</b>	64 GB
<b>RAM</b>	32 KB	<b>RAM</b>	512 MB



Some questions must be answered with a cross . 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 Tahira wants to install a computer in each classroom.

(a) (i) Which **one** of these can **only** use wired network connections?

(1)

- Computer A
- Computer B
- Computer C
- Computer D

(ii) Which **one** of these displays the lowest resolution video?

(1)

- Computer A
- Computer B
- Computer C
- Computer D

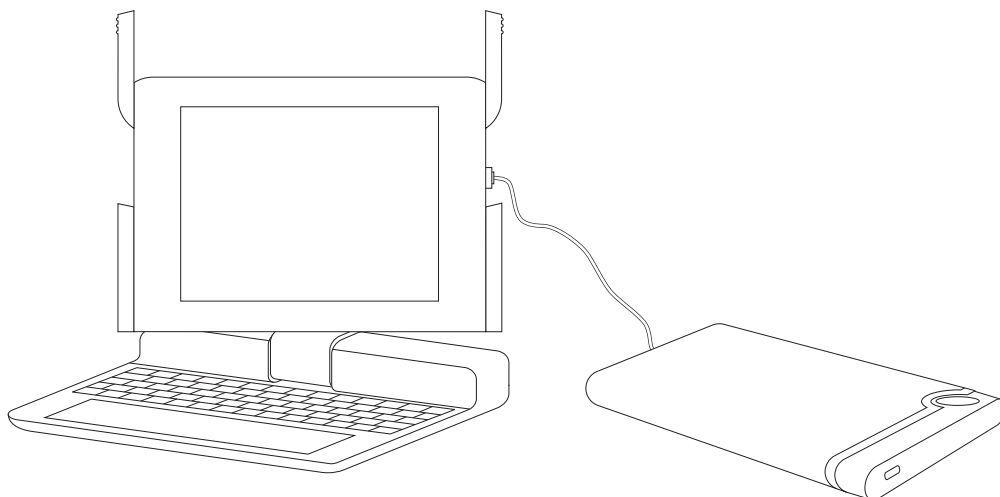
(iii) Which **one** of these has the fastest processor?

(1)

- Computer A
- Computer B
- Computer C
- Computer D



(b) Tahira has added removable storage to this computer.



(i) List **two** wired methods of connecting removable storage to a computer. (2)

1 .....

2 .....

(ii) List **two** peripheral **output** devices that could be used with a computer. (2)

1 .....

2 .....



(c) Tahira buys five computers and connects them to the school's network.

(i) Give **two** benefits of using wired connections to network computers.

(2)

1 .....

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2 .....

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(ii) Give **two** drawbacks of using wired connections to network computers.

(2)

1 .....

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2 .....

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(d) The computers use an open source operating system.

Describe what is meant by the term **open source**.

(3)

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



2 Tahira's school does not have an internet connection.

(a) Many schools in the world do not have access to the internet.

List **three** causes of a lack of access to the internet.

(3)

1 .....

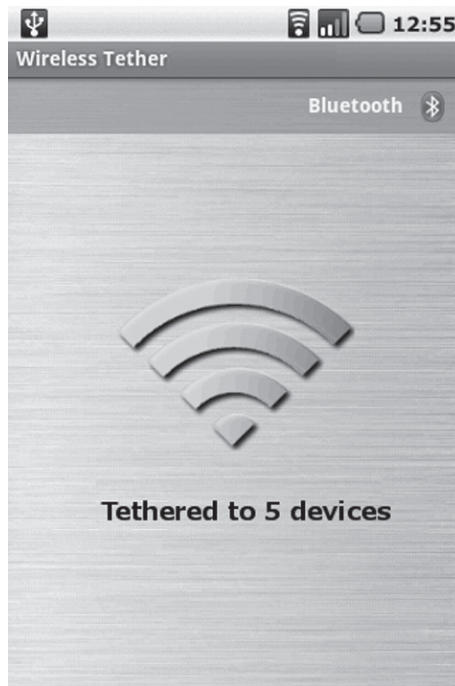
2 .....

3 .....





(b) Tahira shares her smartphone's internet connection with the new computers.



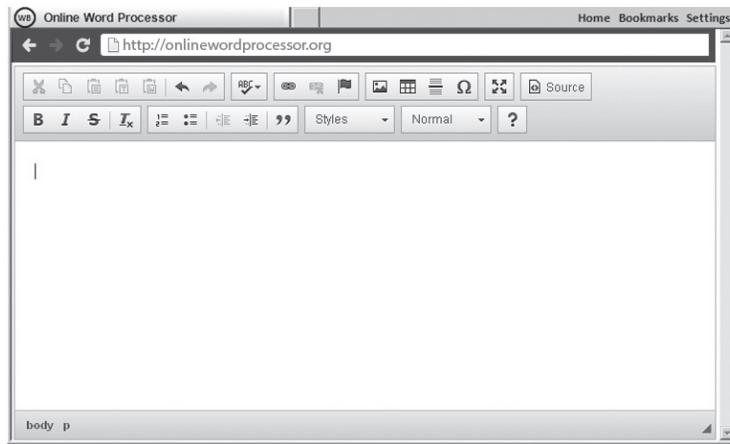
Which **one** of these should be **increased** to improve the students' user experience?

(1)

- A** Bandwidth
- B** Latency
- C** Distance
- D** Interference



Tahira wants the students to use hosted applications software on the computers.



(Source: adapted from CKEditor)

- (c) Before they can use the software each student must create an online account, which includes a personal profile.
  - (i) Give **one** security measure that a student could use to prevent unauthorised access to their online account.

(1)

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- (ii) List **three** ways in which a student could personalise their account profile.

(3)

1 .....

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2 .....

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3 .....

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(d) The school pays online for the software.

List **two** payment methods that the school could use when online.

(2)

1 .....

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2 .....

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(e) Give **two** advantages to the school of using hosted applications software rather than locally installed software.

(2)

1 .....

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2 .....

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(f) Providers of hosted applications software often do not require users to pay a fee.

Give **two** ways in which commercial software companies could respond to this challenge.

(2)

1 .....

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2 .....

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



P 4 2 8 5 3 A 0 1 1 2 0

3 The teacher that Tahira works with uses a computer with a monitor.

(a) State **one** possible effect on health from the use of monitors.

(1)

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(b) List **three** things that Tahira could do to the monitor to minimise the risks to the teacher's health and safety.

(3)

1 .....

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2 .....

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3 .....

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(c) Tahira uses a WiFi adapter to connect the teacher's computer to an interactive whiteboard.

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

(1)

- A** WiFi has a greater range than Bluetooth.
- B** WiFi signals are capable of passing through solid objects.
- C** Bluetooth has a greater range than WiFi.
- D** Bluetooth signals are capable of passing through solid objects.

(ii) Which **one** of these is a measure of display quality?

(1)

- A** Size
- B** Resolution
- C** Memory
- D** Clock speed



(d) State **two** ways in which the energy usage of an interactive whiteboard could be reduced.

(2)

1 .....

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2 .....

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(e) Explain why Tahira might use an interactive whiteboard in a lesson with younger students.

(3)

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(f) State **two** ways that Tahira could make a computer more suitable for students with visual impairments to use.

(2)

1 .....

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2 .....

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(g) The interactive whiteboard is not working correctly.

Tahira uses keywords to search the world wide web for help. This returns too many results.

Give **three** search techniques Tahira could use to return fewer results.

(3)

1 .....

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2 .....

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3 .....

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



4 Tahira uses a Virtual Learning Environment (VLE) with her students.

(a) Describe **one** way in which a VLE could be used to enhance students' learning.

(2)

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(b) A student accesses the system. She sees this challenge response test.



Explain why users might be asked to complete a challenge response test.

(3)

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(c) The school uses students' data responsibly.

Which **one** of these documents should it use to inform students how it does this?

(1)

- A** Fair use policy
- B** Media policy
- C** Copyright policy
- D** Privacy policy

(d) Tahira writes an acceptable use policy for the school network.

List **two** items that Tahira should include in the policy.

(2)

1 .....

2 .....

(e) Tahira's students use an online workspace for a school project.

Describe how students can collaborate using features of an online workspace to complete a project.

(4)

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5 Some of Tahira's students use mobile phones.

(a) Which **one** of these is a feature of **all** mobile phones?

(1)

- A Apps
- B Gaming
- C Expansion capability
- D Connectivity

(b) Which **one** of these is used by mobile phones to send SMS messages?

(1)

- A GPS
- B GSM
- C SMTP
- D HDMI

(c) A student from the UK is visiting the school.

(i) His mobile phone is quad-band.

Explain why this is important to him whilst he is travelling.

(2)

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(ii) Mobile phone calls cost more whilst he is away from the UK.

Describe **one** way in which he could use his phone to contact the UK without using the mobile phone network.

(2)

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(d) Students use their mobile phone cameras to take photos in class.



Explain **one** advantage of storing the photos locally, rather than online.

(3)

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37% of women use gaming apps regularly vs 26% of men.  
(Source: Guardian Media Blog, 6th August 2012)

(e) Describe the possible impact of peoples' gender on their choice of mobile phone features and the functionality these features provide.

(3)

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