

Write your name here

Surname

Other names

Pearson Edexcel
International GCSE

Centre Number

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Candidate Number

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Information and Communication Technology

Paper 1: Written Paper

Thursday 21 May 2015 – Afternoon
Time: 1 hour 30 minutes

Paper Reference

4IT0/01

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 100.
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*

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

SECTION A**Answer ALL questions.**

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

1 Which **one** of these can be used to input **and** output data?

- ☐ **A** Plotter
- ☐ **B** Webcam
- ☐ **C** Scanner
- ☐ **D** Touch screen

(Total for Question 1 = 1 mark)

2 The most appropriate software to use for calculations is:

- ☐ **A** spreadsheet software
- ☐ **B** desktop publishing software
- ☐ **C** word processing software
- ☐ **D** database software

(Total for Question 2 = 1 mark)

3 Computer files are stored in a:

- ☐ **A** table
- ☐ **B** window
- ☐ **C** web log
- ☐ **D** folder

(Total for Question 3 = 1 mark)

4 A washing machine is controlled by microprocessors.

The name given to this type of microprocessor is:

- ☐ **A** a mainframe computer
- ☐ **B** an output device
- ☐ **C** an embedded computer
- ☐ **D** a console

(Total for Question 4 = 1 mark)



5 Which two devices are needed to create and listen to a podcast?

- ☐ A Microphone and monitor
- ☐ B Webcam and speaker
- ☐ C Microphone and speaker
- ☐ D Microphone and webcam

(Total for Question 5 = 1 mark)

6 Customers using a cashpoint machine to withdraw cash must enter:

- ☐ A a password
- ☐ B an account number
- ☐ C a date of birth
- ☐ D a personal identity number

(Total for Question 6 = 1 mark)

7 Copies of files can be stored on an external hard disk.

An external hard disk is a type of:

- ☐ A primary storage
- ☐ B secondary storage
- ☐ C random storage
- ☐ D read-only storage

(Total for Question 7 = 1 mark)

8 The entrance to a building can be controlled by fingertip scanners.

These devices are:

- ☐ A biometric scanners
- ☐ B digital scanners
- ☐ C encrypted scanners
- ☐ D analogue scanners

(Total for Question 8 = 1 mark)



9 The software that must be installed on a computer to access web pages is:

- ☐ A a web crawler
- ☐ B an ISP
- ☐ C a search engine
- ☐ D a web browser

(Total for Question 9 = 1 mark)

10 Modern technology systems allow many people to work from home.

Which of these people would be **most** able to take advantage of modern technology systems to work from home?

- ☐ A A car mechanic
- ☐ B A journalist
- ☐ C A plumber
- ☐ D A shop assistant

(Total for Question 10 = 1 mark)

11 Some chairs are designed to help reduce back problems for computer users.

This type of furniture design is:

- ☐ A encrypted
- ☐ B simulated
- ☐ C ergonomic
- ☐ D accessible

(Total for Question 11 = 1 mark)

12 Computer Aided Learning (CAL) systems often use on-screen assessment at the end of a unit of work.

One benefit for students of using on-screen assessment is that they:

- ☐ A do not have to prepare beforehand
- ☐ B must take the assessment at a fixed time
- ☐ C do not need supervision
- ☐ D can receive immediate feedback

(Total for Question 12 = 1 mark)



13 Which **one** of these statements is correct?

- ☐ **A** When a computer is purchased any pre-installed commercial software can be freely copied onto other computers
- ☐ **B** When a software licence is purchased it allows the user to copy the software on to an unlimited number of computers
- ☐ **C** When a software licence is purchased it gives the user the right to use the software within stated terms and conditions
- ☐ **D** When a software licence is purchased the software becomes the property of the purchaser.

(Total for Question 13 = 1 mark)

14 Any personal data stored electronically by an organisation can be:

- ☐ **A** passed on to other organisations
- ☐ **B** viewed by any member of the organisation
- ☐ **C** used by the organisation only for the purpose specified
- ☐ **D** used by any organisation with the same data protection rules

(Total for Question 14 = 1 mark)

15 When using a search engine, which **one** of these search criteria would produce the smallest number of results?

- ☐ **A** "dogs and cats"
- ☐ **B** "dogs" and "cats"
- ☐ **C** *dogs and cats
- ☐ **D** "dogs" or "cats"

(Total for Question 15 = 1 mark)

16 Factors affecting the performance of a computer used for **video games** are:

- ☐ **A** the size of the hard drive, the clock rate and the amount of ROM
- ☐ **B** the type of processor, the clock rate and the amount of ROM
- ☐ **C** the type of processor, the clock rate and the amount of RAM
- ☐ **D** the size of hard drive, the amount of RAM and the type of processor

(Total for Question 16 = 1 mark)

TOTAL FOR SECTION A = 16 MARKS



SECTION B

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

17 The diagram shows a standard PC.

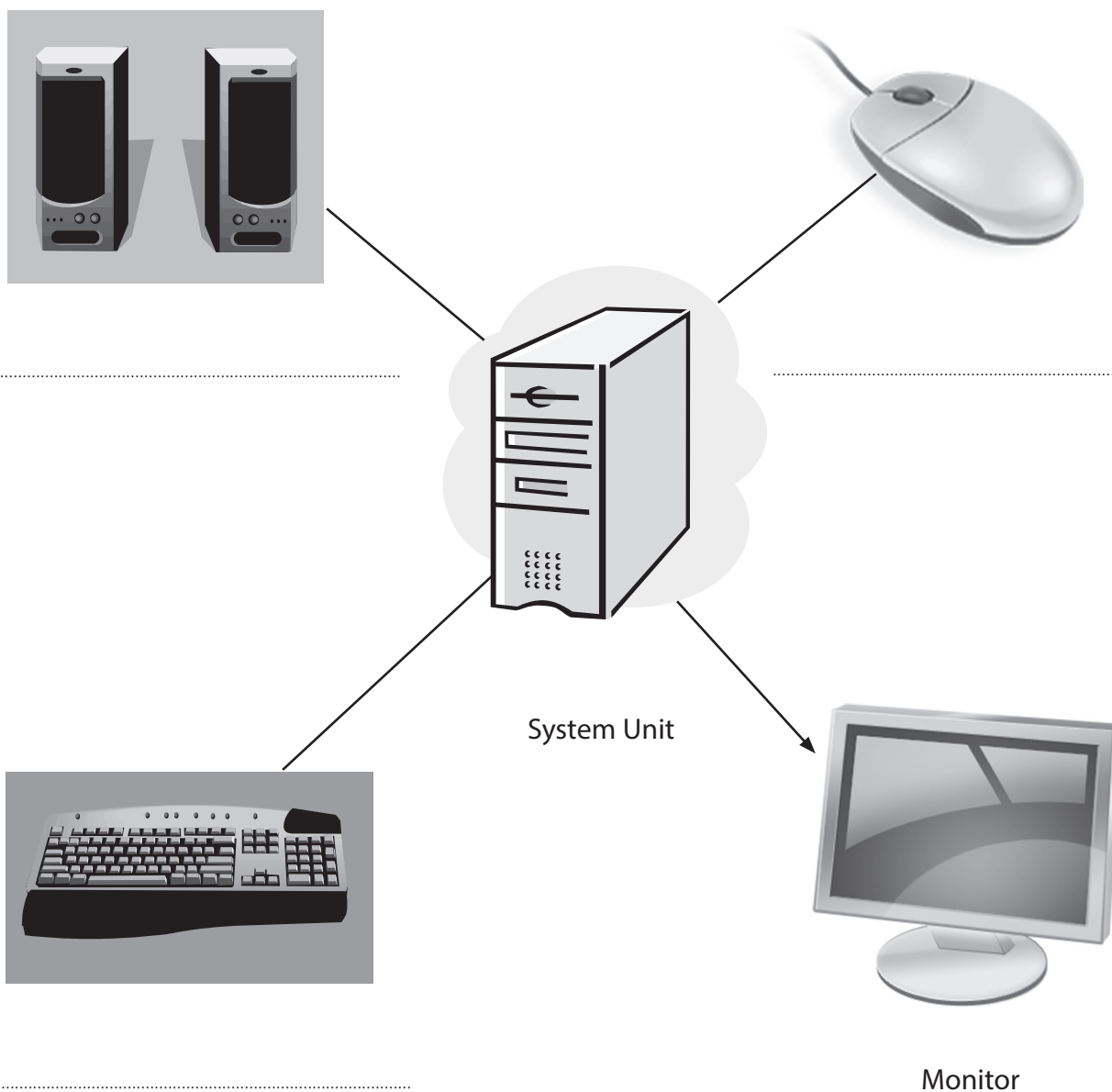
The system unit is where all the computer processing takes place.
All other devices are connected to it.

(a) Label each of the devices shown on the diagram.

In each case, draw an arrow on the line to show the direction of data flow
between the device and the system unit.

The monitor has been done for you.

(6)



(b) The table shows the specification for the PC.

Feature	Details
Hard drive	2TB
Graphics card	4GB
CD/DVD/Blu-ray drive	CD-RW, DVD-RW
Operating system	Windows 8®
Processor	AMD quad-core A10-5800K 4.2GHz
RAM	8GB
USB ports	2x USB 3.0, 4x USB 2.0

(i) The computer has a 2TB hard drive.

State what is meant by the term TB.

(1)

(ii) Identify the speed of the computer processor.

(1)

(iii) Give **two** types of external storage devices that can be used with the computer.

(2)

1

2

(iv) The computer has a graphics card.

Identify **one** type of application that will benefit from having a high capacity graphics card.

(1)



(v) The computer has an 8GB RAM chip.

Explain the role of RAM when data is being processed.

(2)

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.....

(vi) Give **two** ways in which RAM differs from ROM.

(2)

1

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2

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(Total for Question 17 = 15 marks)



18 Katy is a student studying fashion design.

She uses the family PC to complete college work.

She has an assignment to design a range of children's clothing.

- (a) Katy has drawn her initial sketches on paper. She wants to transfer them to the computer without redrawing them.

Identify **one** device that she could use to do this.

(1)

- (b) Katy wants to send the sketches to her tutor via email.

Identify **one** feature of email software that would allow Katy to send the sketches to her tutor.

(1)

- (c) The tutor replies to Katy's email with comments about the sketches.

Katy sends the email to the printer and a 'printer is out of paper' message is displayed on the monitor.

Explain how this message is generated.

(2)

- (d) Katy uses word processing, spreadsheet and graphics software.

These are examples of a type of software.

Give the name for this type of software.

(1)



- (e) Katy uses Computer Aided Design (CAD) software to develop her designs.

One feature of CAD software is that images can be rotated.

Identify **two** other features of CAD software that help Katy to develop her designs.

(2)

Feature 1

Feature 2

- (f) The PC is used by other members of Katy's family.

Katy wants to stop other members of her family accessing her files.

Give **two** methods that Katy could use to do this.

(2)

1

2

- (g) Katy's sister, Juliet, has a visual impairment.

Choosing a high contrast theme will make the computer easier for Juliet to use.

- (i) Identify **two** other system settings that can be adjusted to help Juliet.

(2)

Setting 1

Setting 2



(ii) Identify **one** hardware device that would help Juliet to use the computer.

State what the device would be used for.

(2)

Device

What it would be used for

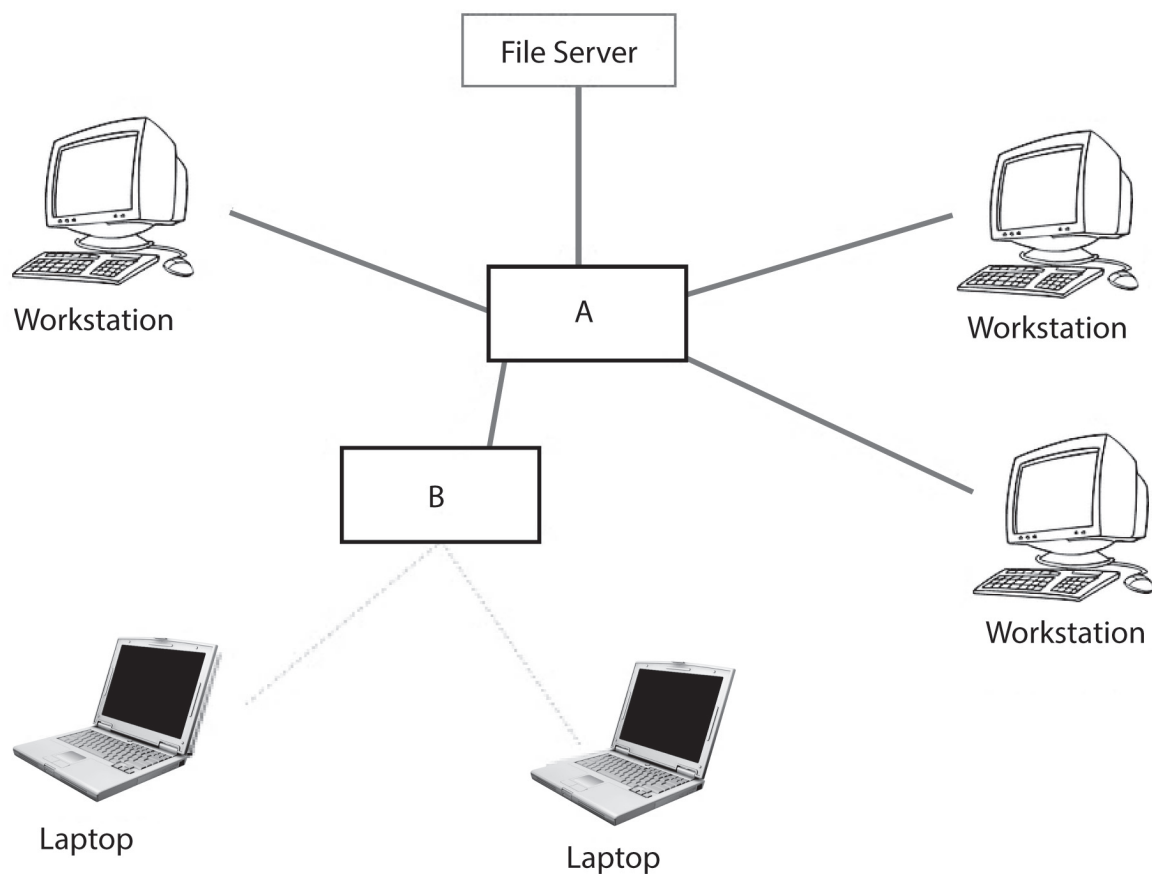
(Total for Question 18 = 13 marks)



19 The diagram shows a computer network in a small office.

(a) Name this type of network.

(1)



(b) Identify the device labelled 'A' in the diagram.

(1)

(c) State the type of **software** that must be installed on the server to allow the network to function.

(1)

(d) State the **hardware** that must be present on each workstation to allow communication with the server.

(1)



- (e) (i) The laptops use wi-fi to connect to the network.

Identify the device labelled 'B' in the diagram.

(1)

- (ii) Give **two** advantages of using a wired connection rather than a wireless connection.

(2)

1

2

- (iii) Some wireless devices use Bluetooth instead of wi-fi.

Give **two** disadvantages of using Bluetooth rather than wi-fi to connect devices.

(2)

1

2

- (f) The people who work in the office have individual user accounts.

Identify **three** ways in which this will impact on their use of the system.

(3)

1

2

3



(g) Viruses are a risk to data stored on computers.

Installing anti-virus software can reduce the risk.

(i) Explain how anti-virus software works.

(2)

(ii) Identify **two** other ways of reducing the spread of viruses

(2)

1

2

(h) The network enables people to work together on a project.

Describe **two** ways in which this can be done.

(4)

(Total for Question 19 = 20 marks)



20 *ACE-Phone* sells mobile phones.

Customers can buy mobile phones from an *ACE-Phone* shop or from its website.

(a) Some customers prefer to buy mobile phones from a shop because they are concerned about the security of their data when buying online.

(i) Give **three** other reasons why customers may prefer to buy mobile phones from a shop.

(3)

1

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2

.....

3

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(ii) Customers need to ensure the security of their data when buying online.

Give **three** checks that customers should make before entering their payment details online.

(3)

1

.....

2

.....

3

.....



(b) Customer data stored by *ACE-Phone* must be accurate and up to date.

Give **three** methods that *ACE-Phone* can use to ensure the stored data is accurate and up to date.

(3)

- 1
- 2
- 3

(c) The *ACE-Phone* website has a system that helps customers to search for mobile phones that meet their needs.

Features		Connectivity		Memory	
☐	Touchscreen	☐	2G	☐	16GB
☐	Non-touchscreen	☐	3G	☐	32GB
☐	Bluetooth	☐	4G	☐	64GB
☐	Music			☐	128GB
☐	Email				
☐	Apps				
☐	Radio				
☐	Games				
☐	Social Media				

Identify **two** ways in which this system makes the search more efficient.

(2)

- 1
- 2



(d) The website also includes reviews of mobile phones written by customers.

(i) Give **two** reasons why these reviews may need to be treated with caution.

(2)

1

.....

2

.....

(ii) Give **two** ways that the information given in the reviews could be verified.

(2)

1

.....

2

.....

(e) *ACE-Phone* sells mobile phones online as well as in its shops.

(i) Identify **two** advantages for *ACE-Phone* of selling online.

(2)

1

.....

2

.....

(ii) Identify **two** disadvantages for *ACE-Phone* of selling online.

(2)

1

.....

2

.....

(Total for Question 20 = 19 marks)



21 A college has a computer network that includes wired and wireless devices.

The network is connected to the internet.

(a) Identify a device that could be used to connect the network to the internet.

(1)

(b) The college uses a dial-up connection to access the internet.

Identify **two** other types of connection that could be used.

(2)

1

2

(c) Teachers at the college communicate with staff at other colleges to discuss subject issues.

They currently hold group discussions using email.

Identify **two** other methods that could be used to hold group discussions.

For each method, give a brief description of how the discussions would be conducted.

(6)

Method 1

Description

Method 2

Description



- (d) Students collect information from a variety of sources when working on assignments.

Discuss the legal issues that they should consider when using the information.

(2)

.....

.....

.....

.....



- (e) Many students at the college have mobile devices such as smartphones or tablet computers.

Some staff believe that using these devices enhances learning, others disagree.

Discuss the advantages and disadvantages of allowing students to use mobile devices in the college.

(6)

(Total for Question 21 = 17 marks)

TOTAL FOR SECTION B = 84 MARKS
TOTAL FOR PAPER = 100 MARKS

