

Write your name here	
Surname	Other names
Centre Number	Candidate Number
Edexcel IGCSE	
Information and Communication Technology Paper 1: Written paper	
Thursday 16 June 2011 - 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.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

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SECTION A

Answer ALL questions.

For each question, choose an answer A, B, C or D and put a cross in the 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 Which **one** of these is an output device?

- ☐ A Scanner
- ☐ B Microphone
- ☐ C Speaker
- ☐ D Mouse

(Total for Question 1 = 1 mark)

2 A document can be printed by clicking on a picture like the one shown.



The name given to a picture used in this way is:

- ☐ A an image
- ☐ B an icon
- ☐ C a photograph
- ☐ D a pointer

(Total for Question 2 = 1 mark)

3 A company wants to calculate staff wages.

The most appropriate type of software to use is a:

- ☐ A presentation package
- ☐ B word processor
- ☐ C control package
- ☐ D spreadsheet

(Total for Question 3 = 1 mark)



4 A bank uses a variety of computer systems.

Customer accounts are stored on:

- ☐ A a PC
- ☐ B an embedded computer
- ☐ C a mainframe computer
- ☐ D a laptop

(Total for Question 4 = 1 mark)

5 The most appropriate input device for freehand drawing is:

- ☐ A a graphics tablet
- ☐ B an OMR
- ☐ C a joystick
- ☐ D a graphics card

(Total for Question 5 = 1 mark)

6 An input device needed to control the humidity in a greenhouse is a:

- ☐ A sensor
- ☐ B control device
- ☐ C scanner
- ☐ D touch screen

(Total for Question 6 = 1 mark)

7 A DVD is an example of:

- ☐ A flash memory
- ☐ B magnetic storage
- ☐ C an optical disk
- ☐ D a hard disk

(Total for Question 7 = 1 mark)



8 Hannah uses passwords to access her online accounts.

To keep her passwords secure Hannah should:

- ☐ A use the same password for all online accounts
- ☐ B write her passwords down
- ☐ C tell her best friend her passwords
- ☐ D regularly change her passwords

(Total for Question 8 = 1 mark)

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

- ☐ A btdrafc
- ☐ B B?18dr!4
- ☐ C BT18dr45
- ☐ D bt18dr45

(Total for Question 9 = 1 mark)

10 Which **one** of these jobs was created as a **direct** result of the introduction of ICT?

- ☐ A Librarian
- ☐ B Call centre operator
- ☐ C Teacher
- ☐ D Checkout operator

(Total for Question 10 = 1 mark)

11 Goods sold in a supermarket have a bar code.

Which piece of information is provided by the bar code?

- ☐ A Item price
- ☐ B Date of manufacture
- ☐ C Item number
- ☐ D Supermarket name

(Total for Question 11 = 1 mark)



12 A supermarket uses an Electronic Point of Sale (EPOS) system.

One benefit to a supermarket of using an EPOS system is that:

- ☐ **A** customers must pay by bank card
- ☐ **B** scanning reduces the amount of theft
- ☐ **C** goods cannot exceed 'sell by' dates
- ☐ **D** stock levels are instantly updated

(Total for Question 12 = 1 mark)

13 Personal data is often transmitted over the internet.

One method of securing the data before transmission is:

- ☐ **A** using encryption
- ☐ **B** filtering
- ☐ **C** streaming
- ☐ **D** using a firewall

(Total for Question 13 = 1 mark)

14 When creating a backup protocol, three factors that must be considered are:

- ☐ **A** data type, computer processor speed and media to use
- ☐ **B** amount of data, computer processor speed and frequency of backup
- ☐ **C** amount of data, frequency of backup and media to use
- ☐ **D** data type, frequency of backup and amount of data

(Total for Question 14 = 1 mark)

15 To link network systems you need a:

- ☐ **A** WAN
- ☐ **B** gateway
- ☐ **C** booster
- ☐ **D** broadband connection

(Total for Question 15 = 1 mark)



16 Computer Aided Manufacture (CAM) systems are widely used in car manufacture.

An advantage of using CAM systems is that:

- ☐ **A** industrial pollution will be reduced
- ☐ **B** CAM equipment is cheap to buy
- ☐ **C** CAM equipment does not need monitoring
- ☐ **D** goods are produced to a consistent standard

(Total for Question 16 = 1 mark)

TOTAL FOR SECTION A = 16 MARKS



SECTION B

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 ☒.

- 17 (a) The table shows a list of components that may be used when playing computer games.

For each component put a cross in the correct box to show whether it is used for input, output or processing.

(5)

	Input	Output	Processing
Mouse	☐	☐	☐
Speaker	☐	☐	☐
Tracker ball	☐	☐	☐
Graphics card	☐	☐	☐
Monitor	☐	☐	☐



(b) Data capture forms can be used to input data to a computer.

(i) Diagram 1 and diagram 2 show two types of data capture form.

In the space provided below each diagram write the name of the **device** that would be used to 'read' the data.

(2)

Candidate Name	Number	For Invigilator's Use	For Examiner's Use
	1	☐ P ☐ A	☐ N8
	2	☐ P ☐ A	☐ N8
Adams: John	3	☐ P ☐ A	☐ N8
Broughton: Saria	4	☐ P ☐ A	☐ N8
	5	☐ P ☐ A	☐ N8

Diagram 1

Device

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Name Caroline Williamson

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A	G	A	T	A		H	A	L	O	N									
2	8					B	I	R	C	H		R	O	A	D				
N	E	W	T	O	N	S					V	A	L	E					
T	Y	N	E			A	N	D			W	E	A	R					
N	E	1	2			5	Y	X											

REASON FOR CLAIM

Date	Centre/Syllabus Project/Course
26/10	NU2F
28/11	NU2E

Please Put Your Edexcel References On See Note 7

AA/Examiner/NPP No. 912683

EV Number 113260

Syllabus No. 42/A

Diagram 2

Device

(ii) Give **two** advantages of inputting data using these devices rather than entering the data manually.

(2)

1

2



(c) Diagram 3 shows part of the directory of a computer system.

Draw a line to identify:

- a folder
- a subfolder
- a fixed storage device
- a removable storage device.

The removable storage device has been done for you.

(3)

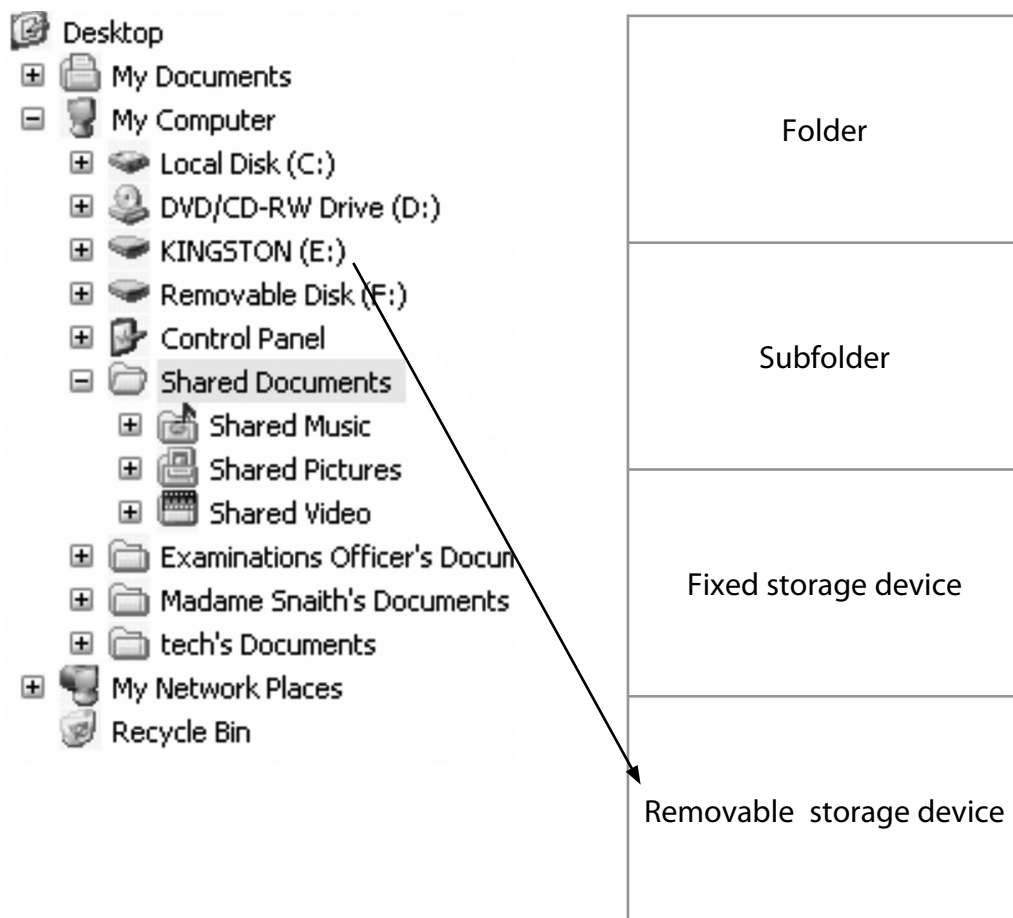


Diagram 3

(Total for Question 17 = 12 marks)



18 The table shows the specifications of two laptop computers.

Feature	Laptop A	Laptop B
Processor speed	2.2 GHz, 800 MHz, 1 Mb cache	1.6 GHz, 533 MHz, 512 Kb cache
Hard drive	250 Gb	160 Gb
Screen size	15.6 inches	10.1 inches
Operating system	Genuine Windows Vista [®] Home Premium	Genuine Windows 7 [®] Home Premium
Wireless enabled	Yes	Yes
Webcam	No	1.3 MP
Bluetooth	Yes	No
Battery life	2 hours	6 hours
Weight	2.9 kg	1.3 kg

(a) Identify the laptop with the larger cache.

(1)

(b) Laptop A has a 250 Gb hard drive.

State what is meant by Gb in this context.

(1)

(c) Each laptop has a pre-installed operating system. An operating system is a type of system software.

Name the other type of software that should be installed.

(1)



(d) Laptop A has Bluetooth.

(i) Describe the term 'Bluetooth'.

(2)

(ii) Give **one** example of how Bluetooth can be used with a laptop.

(1)

(e) Joe Bennett is a salesman. He makes long journeys by train as part of his job. His company offers him the choice of Laptop A or Laptop B.

(i) Name **three** features of the specification of Laptop B that make it more suitable for Joe than Laptop A.

(3)

Feature 1

Feature 2

Feature 3

(ii) For each of the three features, explain why Laptop B is more suitable for Joe.

(6)

Explanation of Feature 1

Explanation of Feature 2

Explanation of Feature 3

(Total for Question 18 = 15 marks)



19 Mr Sanjay has set up a small network in his home. The network is used by Mr Sanjay and his son Jawoul. The network can be accessed via a wired connection to a PC and a wireless connection to a laptop.

- (a) Name the hardware device that is necessary to connect the home network to the internet.

(1)

- (b) The home network connects to the internet using an ISP.

Name the item of information which uniquely identifies the ISP to the home network.

(1)

- (c) Mr Sanjay wants to keep his wireless connection secure.

Name and briefly describe **one** method he can use to stop other people accessing his wireless connection.

(2)



(d) Identify **two** risks to the data stored on his computer when connected to the internet and for each give **two** actions that can be taken to reduce the risk.

(6)

Risk 1

Action

.....

Action

.....

Risk 2

Action

.....

Action

.....

(e) Jawoul enjoys online gaming

Describe **two** benefits of using a wired connection, rather than a wireless connection, to access the network.

(4)

1

.....

.....

.....

2

.....

.....

.....

(Total for Question 19 = 14 marks)



20 Mrs Dale uses the internet to buy clothes for her children.

- (a) Identify the type of software that must be installed on Mrs Dale's computer to enable her to access websites selling children's clothes.

(1)

- (b) (i) Identify **three** advantages to **Mrs Dale** of buying children's clothes online rather than visiting a shop.

(3)

Advantage 1

.....

.....

Advantage 2

.....

.....

Advantage 3

.....

.....

- (ii) Identify **three** disadvantages to **Mrs Dale** of buying children's clothes online rather than visiting a shop.

(3)

Disadvantage 1

.....

.....

Disadvantage 2

.....

.....

Disadvantage 3

.....

.....



(c) Mrs Dale buys children's clothes from an online company called *Girls&Boys*.

The company website is used to advertise the clothes it sells.

(i) Describe **two** other ways in which *Girls&Boys* can advertise using the internet.

(2)

1

2

(ii) In addition to advertising clothes, the website has an online ordering facility.

Give **two** other facilities that could be provided on the website to help potential customers.

For each facility, give **one** advantage to the company and **one** advantage to the customer.

(6)

Facility 1

Advantage to company

.....

Advantage to customer

.....

Facility 2

Advantage to company

.....

Advantage to customer

.....



- (iii) When a new customer orders goods from *Girls&Boys* his/her information is added to a database.

Explain the legal impact of this on *Girls&Boys*.

(2)

(Total for Question 20 = 17 marks)



21 A school has a network of computers located in all parts of the site. One benefit of using a network in a school is the ability to centrally manage students' use.

(a) Identify **three** other benefits of using a network in a school.

(3)

- 1
- 2
- 3

(b) The network is controlled and monitored by a technician.

The technician restricts students' access to specific areas of the network.

Identify **one** way in which the technician can do this.

(1)

-
-

(c) The school has set up an intranet as part of the network.

Identify **three** ways in which the intranet can be used by students or teachers.

(3)

- 1
- 2
- 3



- (d) The technician is responsible for the health and safety of students using the network.

The technician has started to produce a list of 'Health and Safety' guidelines to display in the classrooms.

- (i) One safety guideline is 'put all bags under tables'.

Identify **one** other safety guideline that should be included.

(1)

- (ii) One health guideline is 'take regular breaks'.

Identify **two** other health guidelines that should be included.

(2)

1

2



22 ICT has had an impact on the way that many organisations operate.

- (a) (i) Identify **three** positive effects on **organisations** resulting from the widespread use of ICT.

(3)

1

.....

2

.....

3

.....

- (ii) Identify **one** negative effect on **organisations** resulting from the widespread use of ICT.

(1)

.....

.....



- (b) ICT has also impacted on society. One effect is a widening gap between 'information rich' and 'information poor' societies.

Discuss the factors that have contributed to this widening gap.

(6)

(Total for Question 22 = 10 marks)

TOTAL FOR SECTION B = 84 MARKS

TOTAL FOR PAPER = 100 MARKS



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