Write your name here

Surname

Other names

Edexcel IGCSE

Centre Number

Candidate Number

Information and Communication Technology
Paper 1: Written paper

Thursday 16 June 2011 - Afternoon
Time: 1 hour 30 minutes

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)

Turn over ▶

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** btdrafcr

☒ **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)	(NS)
	2		(P)	(A)	(NS)
Adams: John	3	2002	(P)	(A)	(NS)
Broughton: Saria	4	2004	(P)	(A)	(NS)
	5		(P)	(A)	(NS)

Diagram 1

Device

....

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)
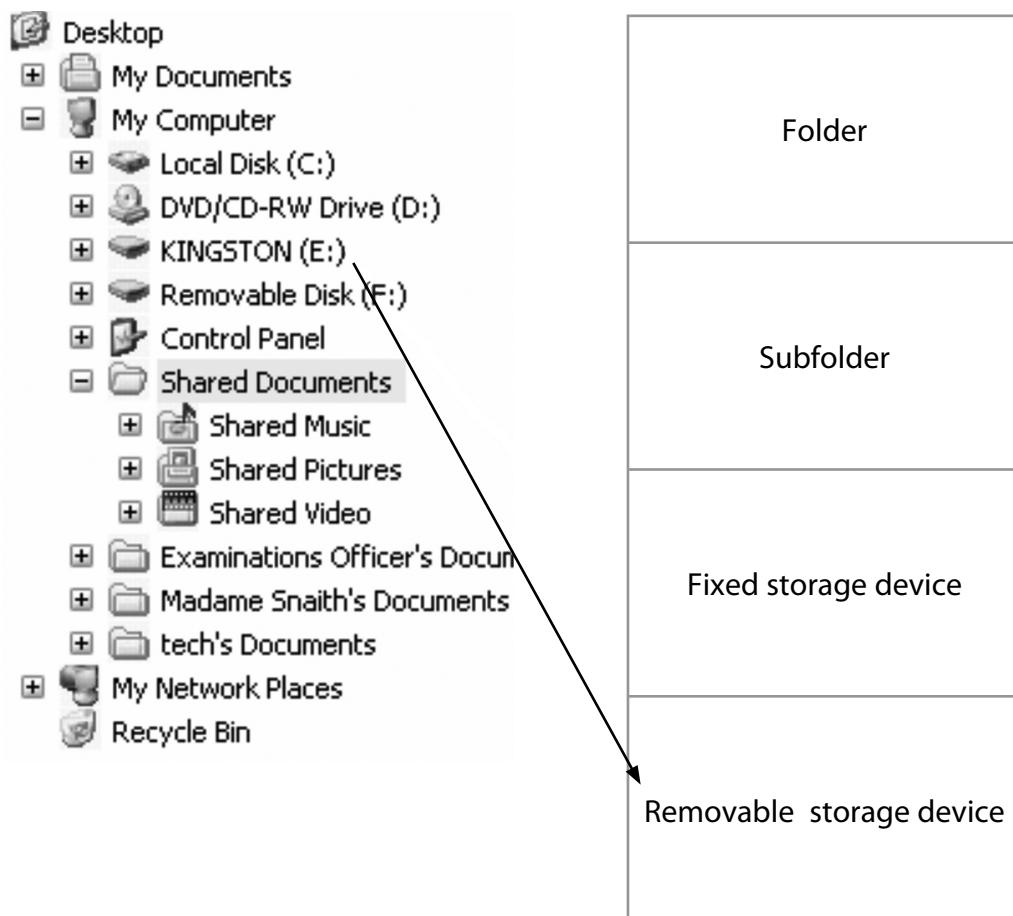
Diagram 3

(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	10.1inches
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)

Turn over ▶

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 ....

....

....

....

Turn over ▶

(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)

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(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 ....

....

(e) Students use the internet to research topics for school.

Discuss the factors that they should consider during their research and when using the information gathered in their own work.

(6)

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(Total for Question 21 = 16 marks)

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)

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(Total for Question 22 = 10 marks)

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

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