Centre No.								Paper Reference							Surname		Initial(s)
Candidate No.							**4**	**3**	**8**	**5**	**/**	**1**	**F**		Signature		

London Examinations IGCSE

Information and Communication Technology

Paper 1F

Foundation Tier

Tuesday 19 May 2009 – Afternoon

Time: 1 hour 30 minutes

Question Number	Leave Blank
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Total	

Materials required for examination	**Items included with question papers**
Nil	Nil

Instructions to Candidates

In the boxes above, write your centre number, candidate number, your surname, initial(s) and signature.
Check that you have the correct question paper.
Answer **ALL** the questions. Write your answers in the spaces provided in this question paper.
Do not use pencil. Use blue or black ink.

Information for Candidates

The marks for individual questions and the parts of questions are shown in round brackets: e.g. **(2)**.
There are 15 questions in this question paper. The total mark for this paper is 100.
There are 16 pages in this question paper. Any blank pages are indicated.

Advice to Candidates

You are reminded of the importance of clear English and careful presentation in your answers.
Include diagrams in your answers where these are helpful.

Turn over

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Answer ALL questions

1. Data can be entered into a computer in several ways.

   (a) Complete the table for the following input methods:

   Barcode reading,   Keyboard,   OCR,   OMR.

   The first one has been done for you.

Explanation	Input method
Keys are pressed to enter data	Keyboard
Text is scanned directly into the computer	
Pencil marks on a grid are scanned directly into the computer	
Black and white stripes on food packaging are scanned into the computer	

   (3)

   (b) State **one** other method of data input.

   ....

   (1)

(Total 4 marks)

2. Letters can be sent via e-mail or via the postal service.

(a) Give **two** benefits of using an e-mail service compared with the postal service.

Benefit 1 ....

Benefit 2 ....

(2)

It is possible to set up a video conference call where more than two people in different countries can discuss matters using a video link.

(b) Give **two** reasons for holding a conference in this way instead of a face-to-face meeting.

Reason 1 ....

Reason 2 ....

(2)

(c) A Webcam is one item of equipment that must be added to a pc to allow a video conference to take place. State **two** other pieces of equipment and state their use.

Equipment 1 ....

Use ....

Equipment 2 ....

Use ....

(4)

Q2

(Total 8 marks)

3. Data stored on tape takes more time to access than the same data stored on a CD-ROM.
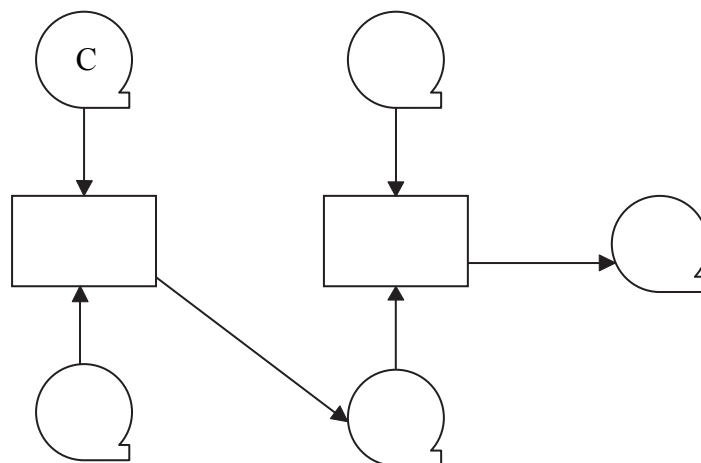
(a) State why this is so.

....

(1)

(b) Give **one** example of where tape storage would be used in preference to CD-ROM storage.

....

(1)

The flow chart shows how file generations can be used to back up a file.

(c) Use the letters A to G to label the flow chart boxes. Letters can be used once, more than once, or not at all. The first one has been completed for you.

    A. Merge

    B. Son File

    C. Transaction File

    D. Father File

    E. Print File

    F. Customer File

    G. Grandfather File

(6)   **Q3**

(Total 8 marks)

4. A school library uses an information system to store details of books borrowed by students. Part of the student table is shown.

Stud_num	Name	Date due	ISBN	Tutor
OXZ3564	Hawkins	21/09/2008	0-7487-6367-8	PA
WRT1458	Singh	23/02/2008	0-7847-5747-3	DB
ASD5689	Smith	05/06/2008	0-6581-2543-9	MT
QWE1234	Ibell	14/05/2008	0-2591-2215-7	VG

Each book in the library has a bar code containing its ISBN.

(a) When data is entered it is validated by software.

(i) Choose a suitable validation check for the Stud_num field and describe how it would work.

Validation Check ....

How it works ....

....

(2)

(ii) Choose a different suitable validation check for the Date due field and describe how it would work.

Validation Check ....

How it works ....

....

(2)

(b) Explain, with an example from the table, why data which was found to be valid by this program might still be wrong.

....

....

....

(2)   Q4

(Total 6 marks)

5. A student is using the Internet to research information for a history project. Access is through a dial up modem.

(a) Before the student can use the Internet the student must register with an Internet Service Provider (ISP). State **three** services in addition to e-mail that could be provided by an ISP.

Service 1 ....

Service 2 ....

Service 3 ....

(3)

The student has found some suitable information containing a video clip and several pages of text and pictures. The student starts to download the information and finds it is a slow process.

(b) State **two** reasons why the student should be careful about using information downloaded from the Internet.

Reason 1 ....

....

Reason 2 ....

....

(2)

(c) (i) State which part of the download is likely to be causing the problem.

....

(1)

(ii) Explain what the problem could be and suggest how it can be overcome.

....

....

(2)

(Total 8 marks)

6. The manager of a small hotel uses a stand-alone computer to administer the booking and billing systems. The manager is considering setting up a local area network (LAN). It will consist of a workstation in reception, one in the manager's office and one in the restaurant.

(a) State two benefits to the manager of using a LAN in this context.

Benefit 1 ....

Benefit 2 ....

(2)

(b) Explain how the manager could prevent reception staff and restaurant staff from accessing confidential hotel data.

....

....

....

(2)

(c) Restaurant staff need to view the food prices regularly. Explain what the manager must do to ensure the price details are not changed or erased accidentally by the staff.

....

....

....

(2)

(d) State, with a reason, the type of application package the manager would be using on the system.

....

....

....

(2) **Q6**

(Total 8 marks)

7. Peter runs a wholesale garden business. Peter uses a spreadsheet to help with the business accounts. Part of the spreadsheet he uses is shown.

	A	B	C	D	E
1	**Sales – May 2009**				
2					
3	**Customer**	**Total Sales**	**Tax**	**Amount Due**	
4	Flowers R Us	£4,392.00	£768.60	£5,160.60	
5	Red Roses Nursery	£8,752.00	£1,531.60	£10,283.60	
6	Bloomsbury	£3,325.00	£581.88	£3,906.88	
7	Garden Delights	£11,569.00	£2,024.58	£13,593.58	
8	Valley Gardening Services	£23,698.00	£4,147.15	£27,845.15	
9	Sensational Blooms	£5,000.00	£875.00	£5,875.00	
10	Flowers for All	£12,345.00	£2,160.38	£14,505.38	
11					

A cell reference consists of a letter and a number; for example, the word Customer is in cell A3.

(a) State the cell reference for the customer "Red Roses Nursery".

....

(1)

Peter's customers must pay a tax of 17.5% on all purchases.

(b) Give a formula that could be used in cell C4 to calculate the amount of tax to be paid.

....

(2)

(c) Give a formula that could be used in cell D4 to calculate the Amount Due.

....

(1)

(d) Explain how this formula could be put into the cell range (D5: D10).

....

....

....

(2)

(e) Explain how Peter could use the spreadsheet to find the largest amount of money spent by a customer.

....

....

....

(2)

(Total 8 marks)

8. Backing up data means taking a copy of the data so that it can be restored if required. A zip drive is a device that is suitable for backing up data.

(a) State **two** other devices that could be used for this purpose.

Device 1 ....

Device 2 ....

(2)

Several factors need to be carefully considered when a backup procedure is designed. One factor is the management of the backup process, such as who will label the backups.

(b) State **three** other factors that should be considered when backing up data.
Give a reason in each case.

Factor 1 ....

Reason 1 ....

....

Factor 2 ....

Reason 2 ....

....

Factor 3 ....

Reason 3 ....

....

(6)

(Total 8 marks)
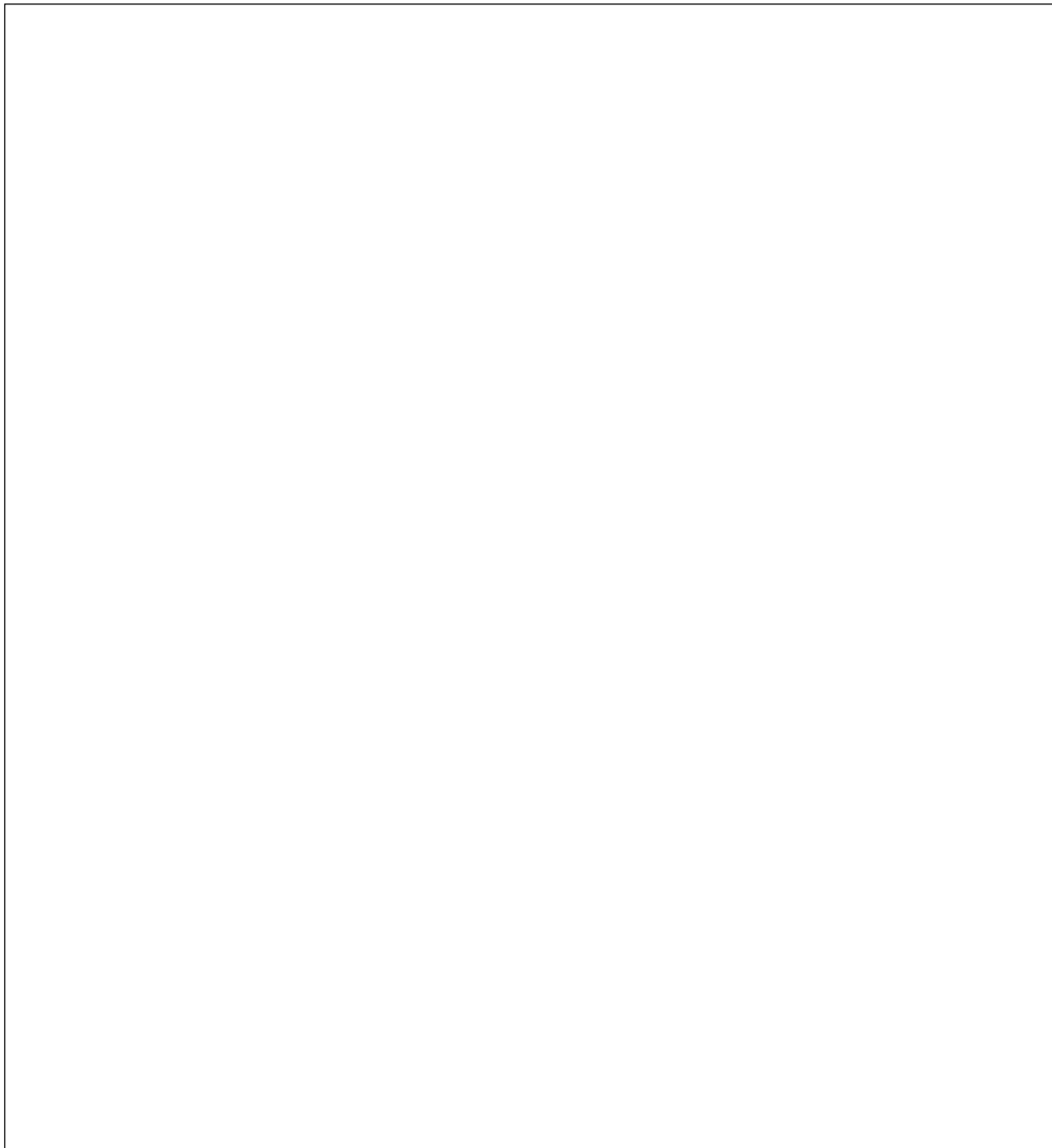
9. WorldTravel.net accepts holiday bookings to all parts of the world via the Internet. Customers must enter the data, some of which is shown below. A screen is then displayed so that the data can be accepted or amended.

- Customer name
- Customer telephone number
- Destination
- Number of people travelling.

Design a suitable user friendly screen for this purpose. Include **three** other data items that would be needed.

Q9

(Total 7 marks)

10. The widespread use of ICT has resulted in changes to the way people work.

  (a) (i) Give **one** example of where the location of work has changed through the use of ICT.

....

(1)

     (ii) Describe **one** effect that this has had on **employers**.

....

....

(2)

  (b) (i) Give **one** example of where a job role has changed through the use of ICT.

....

(1)

     (ii) Describe **one** effect that this has had on **employees**.

....

....

(2)

(Total 6 marks)

11. (a) Explain how a computer simulation is created.

....

....

....

(2)

(b) Virtual reality is a form of computer simulation. Give an example of where virtual reality is used.

....

....

(1)

(c) Explain how virtual reality simulations differ from other computer simulations.

....

....

....

(2)

Q11

(Total 5 marks)

12. All students at a college have to pay a fee of up to £150.00. The table forms part of the college's new administration system.

Student ID	Surname	Initials	Date of Birth	Fee (£)
AHM04025	Ahmed	S	21/09/93	35.00
FAC08036	Facciuto	L	01/08/91	129.00
LAN06031	Lanfear	MR	25/06/92	29.39
LAN06031	Langston	P	04/02/91	51.67
WIL08051	Wilson	JIF	30/07/92	119.25

(a) Suggest a suitable field type and size for each of the following.

(i) Student ID ....

(1)

(ii) Date of Birth ....

(1)

(iii) Fee (£) ....

(1)

(b) The designer wishes to test the system with typical data, extreme data, and invalid data. Give **one** example of each form of test data for the Fee field.

Typical data ....

Extreme data ....

Invalid data ....

(3)

(Total 6 marks)

13. After logging onto a computer, a graphical user interface (GUI) appears. Identify and explain **three** features of the GUI that make it an effective human/computer interface.

Feature 1 ....

Explanation ....

....

....

Feature 2 ....

Explanation ....

....

....

Feature 3 ....

Explanation ....

....

....

(Total 6 marks)

Q13

14. A college wishes to show parents how examination results have improved over the previous five years. The Principal has suggested using tables, charts, or multi-media to present this information. Each of these methods has advantages over the others.

Describe the advantages of each method in this context.

Tables ....

....

....

Charts ....

....

....

Multi-media ....

....

....

(Total 6 marks)

Q14

15. E-mail has improved communication within organisations. Describe the steps used to carry out each of the following tasks efficiently.

(a) Pass on to the sales manager an e-mail message that you have received from a customer.

Step 1 ....

Step 2 ....

(2)

(b) Inform all managers in the organisation about the time and date of a meeting.

Step 1 ....

Step 2 ....

(2)

(c) Send the photograph of a new product to the publicity department.

Step 1 ....

Step 2 ....

(2) **Q15**

(Total 6 marks)

TOTAL FOR PAPER: 100 MARKS

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