

GENERAL CERTIFICATE OF SECONDARY EDUCATION
APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY
 (Double Award)

4872

UNIT 1: ICT Knowledge and Understanding

FRIDAY 6 JUNE 2008

Morning
 Time: 1 hour 30 minutes

Candidates answer on the question paper

Additional materials: No additional materials are required



Candidate Forename

Candidate Surname

Centre Number

Candidate Number

INSTRUCTIONS TO CANDIDATES

- Write your name in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use blue or black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Answer **all** the questions.
- Do **not** write in the bar codes.
- Write your answer to each question in the space provided.

INFORMATION FOR CANDIDATES

- The number of marks for each question is given in brackets [] at the end of each question or part question.
- The total number of marks for this paper is **100**.
- No marks will be awarded for using brand names of software packages or hardware.

FOR EXAMINER'S USE

1		10
2		14
3		14
4		7
5		21
6		6
7		6
8		8
9		9
10		5
TOTAL		100

This document consists of **14** printed pages and **2** blank pages.

Fair 4 All is a company that provides fair trade goods for sale in the UK. It has an office in the west of England, where all the administration is carried out. Some *Fair 4 All* staff travel all over the world to find new products to add to its range.

1 Alison works in the office of *Fair 4 All*. Some of the items included in her computer system are shown in Fig. 1 below:

- | | | |
|----------------|-------------------|------------|
| • DVD rewriter | • hard disk drive | • keyboard |
| • mouse | • processor | • RAM |
| • screen | • speakers | |

Fig. 1

(a) Write down the **two** items from the list in Fig. 1 that are **input** devices.

Input device 1

Input device 2 [2]

(b) Write down the **two** items from the list in Fig. 1 that are **output** devices.

Output device 1

Output device 2 [2]

(c) Write down the **two** items from the list in Fig. 1 that are **backing storage** devices.

Backing storage device 1

Backing storage device 2 [2]

(d) (i) Write down the **one** item from the list in Fig. 1 that is a **storage** device but **not** a backing storage device.

.....

(ii) Describe the purpose of this device.

.....

..... [2]

(e) What is the purpose of the **one** device in Fig. 1 that is **not** an input, output or storage device?

.....

.....

..... [2]

2 The *Fair 4 All* office has a computer network.

(a) Explain what a computer network is and why it is useful to an organisation such as *Fair 4 All*.

.....
.....
.....
.....
.....
.....
..... [4]

(b) Identify **three** items that are needed to convert standalone computers into a network.

Item 1
Item 2
Item 3 [3]

(c) All staff are issued with a user name for the network. Explain the purpose of the user name.

.....
..... [2]

(d) When employees log on for the first time they are asked to choose a new password.

(i) Give **three** recommendations about what makes a good password.

1.
.....
2.
.....
3.
..... [3]

(ii) Explain why the system asks each employee to type in their new password twice.

.....
.....
..... [2]

3 Deepak produces a printed catalogue of the goods *Fair 4 All* can supply. This includes descriptions and clear photographs of its products. There is also some information and photographs of the people and places involved in producing the goods.

(a) *Fair 4 All* uses word processing software for most of its documents.

Give **one** type of software that is more suitable than word processing software for producing the catalogue.

..... [1]

(b) Describe **two** features of your chosen software that make it more suitable than word processing software for producing the catalogue.

Feature 1

.....

Feature 2

..... [2]

(c) Give **two** hardware devices that Deepak can use to obtain photographs in a form that can be used directly by his software.

Give **one** advantage of each device for this purpose.

Device 1

Advantage

.....

Device 2

Advantage

..... [4]

(d) Sometimes Deepak uses graphics software to edit the photograph before inserting it into the catalogue.

Give **three** features of graphics software that can be used to edit photographs.

Feature 1

Feature 2

Feature 3 [3]

(e) Deepak needs to be aware of copyright law when using photographs.

(i) Explain what Deepak needs to know about copyright law when using photographs.

.....
.....
.....
..... [2]

(ii) Give **two** other items, apart from photographs, that can be protected by copyright law.

Item 1

Item 2 [2]

4 The staff who work in the office at *Fair 4 All* spend most of their time sitting at a computer. The company needs to ensure their employees do not suffer any illness as a result of their use of computers.

(a) Identify the law that requires employers to take measures to prevent health problems that might be caused by the use of computers at work.

..... [1]

(b) Identify **three** health problems that can be caused by the use of computers.

For each, give a different way of preventing the problem.

Problem 1

Prevention

.....

Problem 2

Prevention

.....

Problem 3

Prevention

..... [6]

5 Mark works in the *Fair 4 All* office. He uses database software to keep records of the suppliers *Fair 4 All* deals with.

Fig. 2 below shows part of the table of supplier details that Mark has created. This table stores details of over 100 suppliers.

Supplier ID	Supplier	Town/Area	Country	Goods type
0362	Dried Fruit Co-op	Gilgit	Pakistan	Dried fruit
0428	TKPI	Mombasa	Kenya	Crafts
0491	KKP	Bekwai	Ghana	Chocolate
0345	IDN	Banepa	Nepal	Crafts
0482	Mangue de Qualité	Dori	Burkina Faso	Dried fruit
0420	Meru Tea Co-op	Meru	Kenya	Tea
0526	Viva Bien	Cobija	Bolivia	Nuts
0424	LWG	Lamu	Kenya	Crafts

Fig. 2

(a) How many records are shown in Fig. 2?

..... [1]

(b) How many fields are shown in Fig. 2?

..... [1]

(c) What is the purpose of the Supplier ID?

.....

 [2]

(d) Mark has been asked to produce a list of all suppliers of crafts. He would like to be able to see easily which country they come from so he would like, for example, all the suppliers from Kenya to appear together on the list.

Describe how Mark can use his database software to produce a suitable list.

.....

 [4]

(e) Mark's database software allows him to create reports.

Explain what a database report is and why it might be useful to Mark.

.....
.....
.....
.....
..... [3]

(f) Mark also wishes to use his database to keep records of the products *Fair 4 All* buys from each supplier and of customers and the items they buy.

(i) *Fair 4 All* buys several different products from most of its suppliers. For example, the company buys several different types of chocolate from KKP.

Explain why it is not efficient to add details of the products to the supplier table in Fig. 2.

.....
.....
.....
..... [2]

(ii) Give **two** other tables, in addition to the supplier table shown in Fig. 2, that Mark needs.

Table 1

Table 2 [2]

(iii) Explain what Mark needs to do so that he can use all the tables as a single database.

.....
.....
.....
..... [3]

(g) Explain the benefits to Mark of creating and using forms to enter data into his tables.

.....
.....
.....
.....
..... [3]

Fair 4 All
United Trading Estate
Westfield
Westshire
WT1 6YH

A

14 May 2008

Dear Customer

Thank you for your recent enquiry. Please find enclosed our summer catalogue where you will find:

- clothing for men, women and children
- food
- wine
- cards and stationery
- jewellery
- household items and crafts
- children's toys.

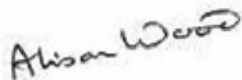
We are sure that you will be impressed by the choice of high quality, fair trade goods from around the world.

If you have any questions about our goods or our policies please contact us by phone or email and we will be pleased to answer you.

Please also note our **SPECIAL OFFERS** on page 16 of the catalogue.

We look forward to receiving your order, which you can send by post or by visiting our on-line shop at www.fairforall.co.uk.

Yours faithfully



Alison Wood
Customer Service Team

Tel: 01655 894521
Fax: 01655 894522

Email: admin@fairforall.co.uk

Fig. 3

6 Alison works in the office of *Fair 4 All*. She has used word processing software to prepare the letter shown in Fig. 3 opposite.

(a) Circle **one** example on the letter that shows each of the following features.

Label each as shown in the table below.

The first one (**A**) has been done for you as an example.

Feature	Label
Centred text	A
A bulleted list	B
A scanned image	C
Bold text	D
The footer	E

[4]

(b) Give **two** methods Alison should use to check the letter before sending it out.

Method 1

Method 2 [2]

7 The data stored on the *Fair 4 All* computer network is very important to the company.

(a) Give **two** ways that data stored on a computer system can be lost.

Way 1

.....

Way 2

..... [2]

(b) Describe **two** methods *Fair 4 All* can use to help prevent loss of data from their computer network.

Way 1

.....

.....

Way 2

.....

..... [4]

- 9 KKP is a company that makes a variety of chocolate products. They use computer controlled machinery for making and packaging the chocolate.

Part of the chocolate making process requires the chocolate to be kept at the correct temperature.

Use words from the following list to complete the sentences. You may use a word more than once. You do not have to use every word.

computer

correct

fan

heater

scanner

sensor

too low

worker

- (a) Computer control uses a to measure the temperature at various stages of the chocolate making process. [1]
- (b) The data from the is constantly input to the [2]
- (c) The compares the temperature with a pre-set level. [1]
- (d) If the temperature is too low the will switch on the [2]
- (e) When the temperature is the will switch off the [3]

10 Fair 4 All uses spreadsheet software to create invoices for customers.

Fig. 4 below shows part of the spreadsheet for one customer:

	A	B	C	D	E
1	Product Code	Description	Unit price	Quantity	Sub total
2	0165	Chunky Choc bar, 40g	£0.65	40	£26.00
3	0256	Drinking chocolate, 250g	£2.20	20	£44.00
4	0265	Choc Snack bar, 25g	£0.26	100	£26.00
5	1211	Raw cane sugar, 500g	£1.10	20	£22.00
6	1212	Demerara sugar, 500g	£1.10	20	£22.00
7	2564	Dried mixed fruit, 500g	£1.75	25	£43.75
8					
9		Total cost of goods			£183.75
10		Delivery charge			£5.50
11		Grand total			£189.25

Fig. 4

(a) Identify the cell that contains the price of one 500g pack of dried mixed fruit.

..... [1]

(b) The number of Chunky Choc bars required has been entered wrongly. It should be 50.

Identify the cell that needs to be changed.

..... [1]

(c) Fair 4 All charges £5.50 delivery for orders totalling less than £200 but delivery is free if the order costs £200 or over.

How can the spreadsheet be set up so that the delivery charge is calculated automatically by the software?

.....

 [3]

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