

**OXFORD CAMBRIDGE AND RSA EXAMINATIONS**  
**General Certificate of Secondary Education**

**APPLIED INFORMATION AND  
 COMMUNICATION TECHNOLOGY**



(Double Award)

**4872**

UNIT 1: ICT Knowledge and Understanding

Tuesday

**24 JANUARY 2006**

Morning

1 hour 30 minutes

Candidates answer on the question paper.

Candidate  
Name

Centre  
Number

--	--	--	--	--

Candidate  
Number

--	--	--	--

**TIME** 1 hour 30 minutes

**INSTRUCTIONS TO CANDIDATES**

- Write your name, Centre number and candidate number in the boxes above.
- Answer **all** questions.
- Read each question carefully and make sure you know what you have to do before starting your answer.
- Do not write in the bar code. Do not write in the grey area between the pages.
- **DO NOT WRITE IN THE AREA OUTSIDE THE BOX BORDERING EACH PAGE. ANY WRITING IN THIS AREA WILL NOT BE MARKED.**

**INFORMATION FOR CANDIDATES**

- The number of marks 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	
2	
3	
4	
5	
6	
7	
8	
9	
<b>TOTAL</b>	

**This question paper consists of 14 printed pages and 2 blank pages.**

*Plants'n'Pots* is a large garden centre selling plants and other items for gardens.

1 *Plants'n'Pots* has a number of desktop computer systems. There is one main office where most of the administration work is carried out.

(a) The table below shows some of the items contained in the computer systems in the main office.

Place **one** tick in each row to show whether the item is an input device, output device, storage device, processing device or software.

The first row has been completed for you as an example.

Item	Input device	Output device	Storage device	Processing device	Software
Processor				✓	
DVD writer					
Hard disk drive					
Keyboard					
Laser printer					
Monitor					
Mouse					
Operating System					
Speakers					
Virus checker					

[9]

(b) Some of the computer systems have a 3.2GHz processor and some have a 1.2GHz processor.

Explain the difference that this will make to the performance of the computer systems.

.....

.....

.....

..... [2]

- 2 Staff at *Plants'n'Pots* use computers for many different purposes. Some of these are shown in the left hand table below.

Draw a line from each purpose to the most appropriate application package.

The first one has been done for you as an example.

Purpose	Application package
Calculating financial information	Control
Counting customers entering the centre	Desktop Publishing
Creating advertising leaflets	Graphics
Designing a new company logo	Monitoring
Keeping a constant temperature in the greenhouse	Spreadsheet

[4]

- 3 The *Plants'n'Pots* office has a computer network and each office worker has a computer to work on.

- (a) Give **two** advantages to *Plants'n'Pots* of having a computer network rather than stand-alone computers.

Advantage 1 .....

.....

Advantage 2 .....

..... [2]

- (b) Identify the item of hardware that is necessary in each computer to enable it to be connected to a network.

..... [1]

- 4 Fay works in the office at *Plants'n'Pots*. She uses a computer to produce leaflets telling customers how to care for different plants.

Fay uses a digital camera to obtain photographs of plants to include at the top of each leaflet.

- (a) Describe **one** way that Fay can use the digital camera and software to obtain a photograph and place it in the correct place on a leaflet on her computer.

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

- (b) Fay wants to use printed photographs as well as photographs from the digital camera. What input device should she use for this?

..... [1]

- (c) Explain why it may **not** be a good idea for Fay to keep every photograph saved on her computer after she has used it.

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

5 *Plants'n'Pots* has a multimedia presentation in the showroom. It uses hyperlinks to allow customers to find out about plants and accessories sold by *Plants'n'Pots*.

(a) Multimedia is the presentation of information by a computer system.

Information can be presented using images.

State the **three** other ways that information can be presented in a multimedia display.

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

(b) How would customers use the hyperlinks in the multimedia presentation?

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

(c) (i) A touchscreen is provided for customers to use.

Place **one** tick in the table below to choose the statement that is correct:

Statement	True (✓)
A touchscreen is used only for input	
A touchscreen is used only for output	
A touchscreen is used for both input and output	
A touchscreen is not used for either input or output	

[1]

(ii) Describe why a touchscreen is suitable for use by customers in the showroom at *Plants'n'Pots*.

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

6 Sarah uses a networked computer in the office to keep financial records for *Plants'n'Pots*.

Sarah logs onto her computer system each day using a **user name** and **password**.

(a) Describe the purpose of:

(i) Sarah's user name .....  
.....  
.....  
..... [2]

(ii) Sarah's password .....  
.....  
.....  
..... [2]

(b) Give **three** pieces of advice Sarah should follow when choosing and using her password:

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

(c) At the end of each day Sarah saves a new copy of the finance file. She uses a different filename each day. It is important that she chooses sensible filenames so that she knows which file is which.

(i) Give **two** pieces of information that the filenames should include.

1 .....

2 ..... [2]

(ii) Explain why it is a good idea to save important files using different filenames in this way.

.....

.....

.....

..... [2]

(d) Sarah also makes backups of her files each week.

(i) What is a backup?

..... [1]

(ii) Why is it necessary to make backups?

.....

..... [2]

(iii) Suggest a suitable storage medium Sarah could use to make backups of her files.

..... [1]

(iv) Give **two** pieces of advice Sarah should follow when deciding where to keep her backups.

1 .....

2 ..... [2]

7 All the computers in the *Plants'n'Pots* office have broadband access to the Internet.

(a) Give **two** differences, apart from cost, between broadband and a dial-up connection using a standard modem.

Difference 1 .....

.....

Difference 2 .....

..... [2]

(b) Explain why it is appropriate for *Plants'n'Pots* to use broadband rather than a dial-up connection using a standard modem.

.....

.....

.....

..... [2]

John is Purchasing Manager at *Plants'n'Pots*. He uses email to send a message to Abir, who works for another company.

(c) Describe what happens to the email message, after John has written it and before Abir can open it.

.....

.....

.....

.....

.....

..... [4]



(d) John complains that he receives a lot of spam in his email inbox.

(i) Describe what is meant by the computer term 'spam'.

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

(ii) Give **two** reasons why John might complain about spam.

Reason 1 .....  
.....  
Reason 2 .....  
..... [2]

- 8 *Plants'n'Pots* runs a discount club for regular customers. For a small fee customers are issued with a membership card which they can use to gain discount on all purchases. Members are also invited to special events such as sales and demonstrations.

Yasser works in the office at *Plants'n'Pots*. He keeps details of discount club members in a computer database. Part of the database table is shown in Fig. 1.

Member number	Date joined	Date of last purchase	Total purchases in 2005 (£)	House number	Street
10320	12/03/02	06/06/05	171.87	165	High Road
10543	02/08/02	12/11/05	53.47	32A	The Close
10731	04/06/03	19/09/05	272.76	11	Spinney Drive
10745	14/04/04	17/08/05	198.53	2	Wood Lane
13697	20/05/04	21/07/05	45.04	27	School Avenue
15454	12/09/04	10/12/05	74.60	12	Draper Street
20198	03/06/05	03/06/05	36.86	23	Manson Close

Fig. 1

- (a) How many records are shown in Fig.1? ..... [1]
- (b) Identify **one** numeric field shown in Fig. 1.  
 ..... [1]
- (c) Identify the key field shown in Fig. 1.  
 ..... [1]
- (d) Explain why a key field is necessary.  
 .....  
 .....  
 .....  
 ..... [2]
- (e) Give **three** additional fields that will be necessary if Yasser is to be able to address letters to the members of the discount club.  
 Field 1 .....  
 Field 2 .....  
 Field 3 ..... [3]

(f) Yasser uses the database software to carry out the following searches.

For each search write down the member number of the customers that Yasser will find from the table in Fig. 1.

(i) Total purchases in 2005 (£) is less than 50.00  
..... [2]

(ii) Total purchases in 2005 (£) is more than 100.00 AND Date joined is less than 31/12/03  
..... [2]

(iii) Total purchases in 2005 (£) is more than 200.00 OR Date joined is more than 01/01/05  
..... [2]

(g) Yasser uses the database software to create reports based on the searches he carries out.

(i) Describe the advantages of creating reports in this way.  
.....  
.....  
..... [2]

(ii) Why might Yasser sometimes prefer **not** to use a report?  
.....  
.....  
..... [2]

(h) *Plants'n'Pots* stores details of products in another database table. Yasser wants to extend the database to allow him to efficiently store details of all purchases made by club members.

Yasser creates a new table, called purchases. It includes the fields 'product code' and 'member number'.

(i) Give **one** other field that should be included in the purchases table.  
..... [1]

(ii) Describe what Yasser will need to do to allow him to use the three tables as a single database.  
.....  
.....  
.....  
..... [3]

*Plants'n'Pots  
Hey Valley Way  
Anytown  
AN5 7GH*

30 January 2006

Dear Customer

As a valued member of *Plants'n'Pots* Discount Club you are invited to our special Spring Promotion preview evening. This will be held on:

**Thursday 9th March 2005**

**7.30pm**

**Complimentary refreshments will be served**

Here you will be able to see our new range of indoor and outdoor plants and seeds, and browse through our extensive range of garden accessories, many at vastly reduced prices. Look out especially for:

- ❁ Half-price stone ornaments
- ❁ Tubs of spring bulbs, only £9.99
- ❁ Our new range of hardy bamboos

I shall be available to discuss any ideas you might have for improving the service we give here at *Plants'n'Pots*.

Our Sale prices will last until the end of March, but you can be among the first to take advantage of our great new offers by joining us for what we hope will be a relaxed and enjoyable evening.

Yours faithfully



Angela Keepax  
Sales Manager

9 Tom works in the office of *Plants'n'Pots*. He has used a word processor to prepare a letter to invite members of the Discount Club to a special preview evening for the *Plants'n'Pots* Spring promotion. The letter is shown in Fig. 2 opposite.

(a) Circle **one** example on the letter that shows each of the following features and label them as shown in the table below.

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

Feature	Label
Centred text	A
Bold text	B
Fully justified text	C
A bulleted list	D
A scanned image	E

[4]

(b) Tom has checked the letter using the spell check feature on his word processor but then reads it through carefully to make sure there are no errors.

Explain why it is necessary to read through the letter even though it has been spell checked. You may find it useful to refer to the letter in Fig. 2.

.....

.....

.....

.....

.....

.....

..... [3]

Angela is the Sales Manager at *Plants'n'Pots*. She wants to improve communication with members of the Discount Club.

(c) Tom usually photocopies letters and produces address labels for the envelopes using the database of members. Angela asks Tom to use mailmerge to produce the invitation letters this time.

(i) Describe how Tom would use the word processor to create mailmerged letters from the letter in Fig. 2.

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

(ii) Explain the advantages to *Plants'n'Pots* of using mailmerge for this task.

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

(iii) Explain why Tom might prefer to produce the letters using the photocopier as before.

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



