

GENERAL CERTIFICATE OF SECONDARY EDUCATION
APPLIED INFORMATION AND
COMMUNICATION TECHNOLOGY (Double Award)
Unit 1: ICT Knowledge and Understanding

4872

Candidates answer on the question paper

OCR Supplied Materials:
None

Other Materials Required:
None

Friday 5 June 2009
Morning

Duration: 1 hour 30 minutes



Candidate Forename		Candidate Surname	
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Centre Number						Candidate Number				
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INSTRUCTIONS TO CANDIDATES

- Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use 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, however additional paper may be used if necessary.

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.
- This document consists of **16** pages. Any blank pages are indicated.

Alding Properties is a company specialising in the building and selling of apartments for retired people. These apartments are in blocks, each containing between 30 and 100 apartments, with a resident House Manager for each block.

Alding Properties has fifteen offices in different areas of England, where they manage the building and sales of apartments. Their main office is in Midtown.

1 Fig. 1 shows some of the basic components included in the computer systems used in the offices:

• Hard Disk Drive	• Keyboard	• Monitor
• Mouse	• Processor	• RAM

Fig. 1

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

1.
2. [2]

(b) Write down the **one** item from the list in Fig. 1 that is an output device.

..... [1]

(c) Write down the **one** item from the list in Fig. 1 that is a backing storage device.

..... [1]

(d) Write down the **one** item from the list in Fig. 1 that is an internal storage device.

..... [1]

(e) (i) Identify **one** further output device that the office staff will need in order to produce letters to send to customers.

..... [1]

(ii) Why is it **unlikely** that every computer system in each office will include one of these devices?

.....

.....

.....

..... [2]

2 The staff working in the different offices of Alding Properties often need to speak with each other. They are able to have conversations using their broadband internet connection instead of the telephone system.

(a) The staff need to use additional hardware devices, apart from those shown in Fig. 1, so that they can speak to and hear each other.

(i) Identify **one** additional input device needed.

..... [1]

(ii) Identify **one** additional output device needed.

..... [1]

(b) Give **one** reason why Alding Properties encourages their staff to use this method of communication rather than the telephone system.

.....
..... [1]

(c) Explain why the staff of Alding Properties will still need to use the telephone system.

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

- 3 Jane works in the main office of Alding Properties. She uses database software to store information about its apartment blocks. Part of the data is shown in Fig. 2:

ID	Name	Area	Post code	No of apartments	House Manager
31	Larch Court	Southerton	SH4 6KJ	42	Layla George
11	Maple Court	Eastling	ES8 7RG	62	Isobel Parker
14	Oakdene	Northingham	NH2 7TD	48	Mal Brown
12	Poplar Court	West Royton	WR35 2YH	36	Aysha Bains

Fig. 2

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

..... [1]

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

..... [1]

- (b) The data in Fig. 2 has been sorted.

Identify the field that has been used to sort the data.

..... [1]

- (c) Explain why the **ID** number is necessary.

.....

 [2]

- (d) Jane's database software allows her to create and use forms, queries and reports.

Describe the **main** purpose of these features:

(i) Forms
.....
.....
..... [2]

(ii) Queries
.....
.....
..... [2]

(iii) Reports
.....
.....
..... [2]

- 4 The designs of Alding Properties' apartment blocks are very similar, although the company tries to incorporate new ideas and improvements whenever they build a new block. Some blocks have more apartments than others.

Howard works as part of the team of architects who design new apartment blocks for Alding Properties.

- (a)** Identify the type of software that is **most** suitable for Howard to use when creating designs.

..... [1]

- (b)** Explain, with reasons, why using a computer with this software is more suitable for this task than drawing the designs by hand.

[6]

- (c) Howard saves his work regularly throughout the day.

Describe **one** reason why it is important to save work regularly.

.....

.....

.....

..... [2]

- (d) At the end of each day Howard makes backups of his files.

- (i) Explain why backups are necessary.

.....

.....

.....

..... [2]

- (ii) Identify **two** different storage media that Howard could use for his backups.

Storage medium 1

Storage medium 2 [2]

- (iii) When choosing a suitable storage medium Howard will consider the cost.

Give **three** other factors, apart from cost, that Howard should consider when choosing a storage medium for his backups.

1.

.....

2.

.....

3.

..... [3]

- 5 Alding Properties sends out regular newsletters to the occupants of each completed apartment. They send these through the post with a standard letter, which they complete with the personal details of the occupants.

The newsletter is created using desktop publishing software and the letter is created using word processing software.

- (a) Give **two** features of desktop publishing software that make it more appropriate than word processing software for creating a newsletter.

Feature 1

.....

Feature 2

..... [2]

- (b) (i) Give **one** feature of word processing software that is useful for producing the same letter addressed to a number of different people.

..... [1]

- (ii) Describe how the personal details are automatically added to the letters.

.....

.....

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..... [3]

- (c) Explain why it is appropriate to send out the newsletters in the post rather than by electronic methods.

.....

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..... [2]

- (d) The staff at Alding Properties need to make sure they comply with relevant legislation when creating and sending out their newsletters.

Place **one** tick in each row below to indicate whether each statement is true or false.

Statement	True (✓)	False (✓)
Any photograph copied from a website can be used in the newsletter.		
Alding Properties must make sure that the names and addresses they store are correct.		
The occupants of the apartments have the right to see the information Alding Properties stores about them.		
Alding Properties must make sure that any personal information they store is safe from hackers.		

[4]

- 6** Mark works for the Sales Department at Alding Properties. He has been asked to set up a stand at an exhibition where he will promote the company and its latest apartments.

- (a)** Mark will use a multimedia presentation on his stand. He would like this to show potential customers what the apartments are like, including recommendations from existing residents.

Complete the table below to show how different media types can be used in this presentation. The first one has been done for you as an example.

Media Type	How it can be used
Graphics	Photographs of existing apartments so that people can see what they really look like.

[9]

- (b)** Mark will use a menu system in his presentation to allow customers attending the exhibition to look at the slides that interest them most.

Describe how menu items can be created on a presentation slide, so that they will link to other slides when they are clicked on.

.....

.....

.....

.....

.....

..... [3]

- (c) Give **two** suitable input devices Mark might provide for customers to choose menu options.

Device 1

Device 2 [2]

- (d)** Mark will also prepare leaflets to give out at the exhibition.

Discuss the benefits of a multimedia presentation and printed leaflets **and** explain why it is a good idea for Mark to use both.

[7]

- 7 The costs of maintaining and running the apartment blocks built by Alding Properties are shared between all the residents in the form of a service charge. This is calculated annually for each apartment block.

Israr works for Alding Properties and is using spreadsheet software to calculate the service charge for each apartment block. Fig. 3 shows Israr's spreadsheet, with the data for one of the apartment blocks.

	A	B	C
1	Apartment block name:		Larch Court
2	No of apartments	42	
3			
4	Service	Cost	Per apartment
5	House manager	12,500	
6	Emergency alarm	3,000	
7	Maintenance	7,195	
8	Insurance	3,524	
9	Miscellaneous	1,256	
10	Management fee	6,567	
11	Total service charge		

Fig. 3

- (a) All of the costs need to be shared equally between the apartments.

Write formulas **in the correct cells in Fig. 3** for the following.

- (i) The cost per apartment for the house manager. [2]
- (ii) The cost per apartment for each of the other services shown. [2]
- (iii) The total service charge for each apartment. [2]

- (b) Explain the best way of entering the formulas into rows 5 to 10, without typing each one individually.

.....

.....

.....

.....

.....

.....

.....

..... [6]

- (c) Israr decides to create a template from his spreadsheet by deleting the data for Larch Court. He intends to use this to create a new sheet for each apartment block. When Israr deletes the data, error messages are displayed.

- (i) Explain why an error message is displayed for the charge **per apartment** for each of the six services.

.....

.....

.....

..... [2]

- (ii) Explain why an error message is displayed for the **total service charge**.

.....

.....

.....

..... [2]

- (iii) Explain **one** way Israr could alter his spreadsheet so that these error messages are not displayed in the template.

.....

.....

.....

..... [2]

- 8 When Alding Properties sells an apartment there are a number of legal documents that need to be prepared, then signed. These are prepared by solicitors using word processing software.

Solicitors often send draft copies of these word-processed documents to Alding Properties as email attachments. However, they do not use this method to send the final copy for signing.

- (a) Explain the advantages of sending **draft** word-processed documents as email attachments, rather than traditional post.

.....

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.....

..... [3]

- (b) Why is this method **not** appropriate for sending the **final** copy for signing?

.....

..... [1]

- (c) Give **one** electronic method that is more appropriate for sending legal documents.

..... [1]

- (d) (i) Identify **one** potential risk of receiving documents as email attachments.

.....

..... [1]

- (ii) Describe what Alding Properties should do to reduce this risk.

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.....

..... [3]

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