

Monday 3 June 2013 – Afternoon

AS GCE INFORMATION AND COMMUNICATION TECHNOLOGY

G061/01 Information, Systems and Applications

Candidates answer on the Question Paper.

OCR supplied materials:

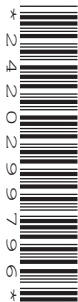
None

Other materials required:

None

Duration: 2 hours

MODIFIED LANGUAGE



Candidate forename		Candidate surname	
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Centre number						Candidate number				
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INSTRUCTIONS TO CANDIDATES

- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer **all** the questions.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Write your answer to each question in the space provided. Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- Do **not** write in the bar codes.

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 **120**, of which marks are allocated to the assessment of the quality of written communication where an answer requires a piece of extended writing. These questions are marked with an asterisk (*).
- This document consists of **20** pages. Any blank pages are indicated.

A construction company builds and sells houses.

The company has a website. The website contains data about the company. It has a search facility to help customers find the right house and gives customers the opportunity to place a deposit for a house.

1 (a) Describe the term data.

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..... [2]

(b) The company website contains dynamic data.

(i) Describe what is meant by dynamic data.

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..... [2]

(ii) Give **two** examples of how the website could make use of dynamic data.

1

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2

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[2]

- (c) The website contains thumbnail images of the houses.

Describe **two** advantages of using thumbnail images on the website.

1

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2

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[4]

- (d) Describe **two** validation methods that could be applied to a credit card number used to pay the deposit.

1

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[4]

When a customer pays a deposit online, the company checks that the money has been received in its account.

If the money has not been received then an email is sent to the customer informing them.

If the money has been received the property is taken off the market. The customer is sent a confirmation email and a statement for the amount of money still owed.

2 Draw a diagram to show the input, process, storage, output stages for the above system.

[6]

The company uses a variety of different items of software and hardware.

- 3 (a) Using examples, describe the difference between software and hardware.

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..... [4]

The company has several employees who are physically disabled.

- (b) Identify **three** specialist hardware devices for employees who do not have the use of their arms.

1

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2

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3

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[3]

The company has been investigating new invoicing systems to replace its old system.

4 (a) Describe **three** characteristics of an invoicing system.

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[6]

(b) The company stores different files with different file types.

Explain **two** advantages of having different file types.

1

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2

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[4]

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Question 5 begins on page 8

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Part of the spreadsheet that the company currently uses is shown below.

	A	B	C	D	E	F	G
1	House ID	Agent	Price	Commission		Commission Table	
2	45	Fred	£149,999	3.00%		0	2.50%
3	56	Fred	£89,000	2.50%		100,000	3.00%
4	78	Wilma	£238,500	3.50%		200,000	3.50%
5	79	Betty	£129,995	3.00%		350,000	4.00%
6	101	Betty	£499,999	4.00%			
7	134	Fred	£249,950	3.50%			
8	156	Wilma	£199,999	3.00%		Total Sales	
9	208	Barney	£99,950	2.50%		Fred	£838,948
10	340	Fred	£349,999	3.50%		Wilma	£438,499
11						Betty	£629,994
12						Barney	£99,950

5 (a) (i) Describe absolute and relative cell referencing.

Absolute

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Relative

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[4]

- (ii) Use the spreadsheet shown to give examples of how absolute and relative cell referencing could be used.

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..... [2]

- (b) Explain **two** advantages of using ranges in the spreadsheet.

1

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2

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..... [4]

- (c) Explain **two** advantages to the company of storing the data across multiple worksheets.

1

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2

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..... [4]

Part of the database that the company currently uses is shown below.

HouseID	Location	Number of Bedrooms	En-Suite?	Garden Length (m)
1	Gloucester	5	Y	250
2	Cirencester	4	N	59
3	Salisbury	6	Y	235
4	Gloucester	3	Y	150
5	Cirencester	4	Y	10.5
6	Cirencester	5	Y	100
7	Salisbury	4	N	50
8	Larkhill	4	Y	750
9	Larkhill	5	Y	200

- 6 (a) The company uses the database to search for suitable houses for customers.

Write a suitable query to find all houses that are in Gloucester, have three bedrooms, an en-suite and a garden that is at least 60m long.

.....

 [4]

- (b) Using the part of the database above, identify the field that should be used as the primary key.

..... [1]

Explain why the field you have chosen is the most suitable field to be the primary key.

.....

 [2]

One characteristic of data in first normal form (1NF) is that there must be a primary key.

(c) (i) Identify **two** other characteristics of data in 1NF.

- 1
-
- 2
-
- [2]

(ii) Describe **two** advantages of normalisation.

- 1
-
-
-
- 2
-
-
-
- [4]

(d) Identify the most appropriate data types for the following fields.

Number of bedrooms

Garden Length

[2]

The company is creating a new tailored data entry screen for its database. One of the design considerations is font.

(e) Describe **three** other design considerations for the new tailored data entry screen.

- 1
-
-
-
- 2
-
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-
- 3
-
-
-

[6]

(f) Some of the data is encoded before being entered into the database.

Describe **two disadvantages** of encoding data.

- 1
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-
-
- 2
-
-
-

[4]

- 7 The company is reviewing the documentation that it produces. It is considering making more use of templates.

(a) Describe **two** advantages to the company of using templates.

1

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[4]

- (b) The company wants to personalise the communications it sends to its customers. It has been told that mail merge can be used to do this.

Describe **two** other advantages of using mail merge.

1

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2

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[4]

8 The company is giving a computer presentation to potential customers.

- (a)** Describe the following features of presentation software. For each, give an example of its use in the presentation.

Hotspot

 [2]

Example of use
 [1]

Slide Transition

 [2]

Example of use
 [1]

- (b)** The company is thinking about using different types of images in the presentation.

Evaluate the suitability of using bitmap images in the presentation.

.....

 [6]

9 The company is concerned about the security of its ICT systems.

(a) State **two** rules that can be applied by the network manager to ensure that passwords remain effective.

1

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2

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[2]

(b) Describe the difference between the role of a User ID and a password.

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[2]

- 10** The company is investigating health problems which staff might suffer as a result of working with ICT equipment.

Describe **three** health problems related to working with ICT equipment. For each, give a different solution.

1

 [2]

Solution
 [1]

2

 [2]

Solution
 [1]

3

 [2]

Solution
 [1]

- 11*** Discuss the impact of future developments in ICT on the way that the company communicates with its customers and the consequences of these developments. **[11]**

[illegible]

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END OF QUESTION PAPER

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