

Monday 16 January 2012 – 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



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.

1 Sander and Son are a letting company. It has a number of clients who have houses to let and customers who rent the houses.

(a) Sander and Son produce a brochure for prospective clients giving information on the services they provide.

What is meant by the term information?

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..... [2]

(b) Describe **one** advantage of using pictures to convey information in the brochure.

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..... [2]

(c) Sander and Son want to personalise the brochures and have been told they can do this by mail merge.

Describe **two other** advantages of using mail merge in the brochures.

1

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2

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..... [4]

(d) Describe **two** advantages to Sander and Son of using a direct source to collect information on its clients' properties.

1

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..... [4]

2 Miss Stephenson has seen an advertisement for a laptop. The advert says that the laptop comes with many pieces of software and has a WIMP interface.

(a) Describe, using an example, what is meant by software.

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..... [2]

(b) Describe **two** characteristics of a WIMP interface and for each give an example of how Miss Stephenson could use it.

1

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2

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..... [6]

(c) Miss Stephenson has a physical disability and has purchased some specialist input devices.

Describe, giving an example of their use, the following input devices

Puff-suck switch

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Microphone

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[4]

3 A furniture company is looking to expand its business with the purchase of an additional shop. They have created a spreadsheet model to help them.

(a) State **two** 'what-if?' questions the furniture business could use the spreadsheet model to answer.

1

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2

..... [2]

(b) Describe **two** advantages of using a spreadsheet to answer 'what-if?' questions.

1

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..... [4]

(c) Explain, using an example, how rules could be used in the spreadsheet model of the expansion of the business.

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..... [4]

- 4 Mrs Patel needs to travel by train from Coventry to Newton Abbott, arriving in Newton Abbott no later than 6.35 pm.

Describe **three** processes that would need to be carried out by a timetabling system when answering Mrs Patel's query.

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..... [6]

5 A mail order company stores details on customers, products, suppliers and orders in its database.

(a) Explain the role of the primary key in the products table.

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..... [3]

(b) The identification of keys is one item held in a data dictionary related to a field.

Describe **two** other items held in a data dictionary related to a field.

1

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2

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..... [4]

(c) Explain, using an example, the role of relationships in the database.

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..... [4]

(d) The structure of the database has grown over time and is not fully normalised.

Describe **two disadvantages** of having a fully normalised database.

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..... [4]

- (e) The database contains the following entities:
CUSTOMER: Stores details of customers who place orders.
PRODUCT: Stores details of individual products.
ORDER_DETAILS: Stores details of the orders.
ORDER_CONTENTS: Stores details of the products ordered by the customer for each order.

Define the relationships between the following entities:

CUSTOMER

PRODUCT

ORDER_DETAILS

ORDER_CONTENTS

[3]

Go to page 12 for the next question

11
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TURN OVER FOR QUESTION 6

6 A company that specialises in motivational talks is producing a set of presentations to accompany the talks.

(a) The company has a style sheet.

Identify **four** elements that could be defined in a style sheet for the presentation.

- 1
- 2
- 3
- 4 [4]

(b) Describe **two** advantages of using a house style for the presentations.

- 1
- 2 [4]

8 A bookshop has a database which includes details of books.

(a) Describe the following validation methods and give an example of where each could be used.

Lookup
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Check Digit
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..... [6]

(b) State the most appropriate data types for the following fields in the bookshop database:

Field Name	Data Type
ISBN	
Book Price	
Number of Pages	

[3]

- 9 A museum has a touch screen monitor in its foyer that runs a presentation which visitors can use to find out information about the exhibits.

Describe the different needs these visitors would have when using the presentation for the first time.

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..... [4]

- 10 A company stores information about Mr Jones. For each of the following crimes, identify which Act has been broken.

Storing Mr Jones' old address after he has moved.

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Mr Jones' secretary accesses Mr Jones's account with the company without permission.

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A company employee gives information about Mr Jones' purchases to his neighbour.

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..... [3]

