

Friday 25 May 2012 – Morning

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	
Centre number		Candidate number	

MODIFIED LANGUAGE

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 A hotel stores data in its database.

(a) Why is C1463X data?

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..... [2]

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

Describe **two** advantages of encoding data.

1

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2

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..... [4]

(c) The hotel archives its booking data every year.

Give **two** reasons why data should be archived.

1

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2

..... [2]

- (d) The hotel uses utility software to archive its data.

Give **two** other examples of types of utility software.

- 1
-
- 2
- [2]

- 2 A publishing company uses a graphics library.

- (a) Describe what is meant by a graphics library.

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..... [2]

- (b) Describe **two** advantages to the publishing company of using a graphics library.

- 1
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-
- 2
-
-
- [4]

3 A company has produced a presentation about widgets.

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

Animation

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Button

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..... [6]

- (b) Describe **two disadvantages** of using clipart images in the widget presentation.

1

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2

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..... [4]

(c) Describe **two** advantages of using a computer and projector to deliver the presentation.

- 1
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- 2
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-
- [4]

(d) Describe how a presentation that has been made to be used as a standalone presentation with no user intervention can be changed to work as a touch screen presentation.

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-
- [4]

- (e) The company wants to change the presentation to include interaction from the viewer.

Using examples, describe **two** ways a voice based natural language interface could be used in the presentation.

1

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..... [4]

- 4 A cinema has produced a poster to advertise a local film festival.

It is important to consider age, level of detail and accuracy when maintaining the quality of information in the poster.

Describe the terms age, level of detail and accuracy in the context of the quality of information in the poster.

Age

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Level of detail

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Accuracy

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..... [6]

5 A car dealership uses a tailored spreadsheet to monitor sales and profit in its showrooms.

(a) Describe **two** different elements that could be tailored in a spreadsheet.

- 1
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- 2
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-
- [4]

(b) Describe **two** advantages of tailoring a spreadsheet.

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

- (c) Describe **three** features of a spreadsheet model that could be used to help predict the sales and profit over the next twelve months for the car dealership.

1

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2

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- (d) Explain **two disadvantages** of using a spreadsheet model to create and run the predictions.

1

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2

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..... [4]

- 6** An architecture design company has purchased a plotter to use in its office to print its drawings.

Justify the decision to use a plotter to print the drawings.

[6]

- 7 A small company has implemented a house style for all its documents.

Describe what is meant by a house style.

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..... [3]

8 A hospital uses several different databases.

(a) One of the databases stores data about the surgery.

Part of the surgery database is shown below.

*SurgeryNum	Surgery Identification	Surgeon	Phone
1234	Knee surgery	Jones	1111
1235	Heart replacement	Adams	1121
1236	Cataracts	Swan	1131
1237	Heart valve repair	Adams	1121
1238	Knee arthroscopy	Jones	1111
1239	Ganglion removal	Oliver	1144
1240	Ingrowing toe nail	Lynch	5434
1241	Nose shaping	Harris	2345

*Primary key

Describe how it is known that the data table above is **not** in third normal form.

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..... [2]

- (b) The casualty department at the hospital stores details on patients, details of their visit and, if necessary, x-rays taken which are stored as an image.

Create an ERD for the above scenario identifying the degree of the relationship between the entities and the primary and foreign keys.

[5]

- (c) The hospital stores patient records.

Give the most suitable data type for each of the fields shown in the table below. State why you have chosen that data type.

Field	Data Type	Why this data type has been chosen
Telephone No
Gender
Number of previous operations

[6]

- (d) The hospital appointment database uses dynamic and static parameter queries.

Describe the difference between a dynamic and a static parameter query. Give an example of the use of each.

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- (e) The hospital website makes use of static and dynamic data.

Describe **two** advantages of using dynamic data on the hospital website.

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2

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..... [4]

- 9 A small primary school has five standalone computers. One has an internet connection. The IT manager has suggested to the school that they set up a network.

Describe **three** advantages to the school of networking the computers.

1

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10* Explain the harm to teenagers that could be caused by the use of the internet.

The quality of written communication will be assessed in your answer to this question.

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[11]

- 11* Discuss the impacts and consequences to the transport system that could be brought about by future developments in ICT.

The quality of written communication will be assessed in your answer to this question.

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