



ADVANCED SUBSIDIARY GCE
INFORMATION AND COMMUNICATION TECHNOLOGY G061
 Information, Systems and Applications

Friday 15 May 2009
Morning

Duration: 2 hours

Candidates answer on the question paper

OCR Supplied Materials:
 None

Other Materials Required:
 None



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 **120**.
- 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.

The OCR Airline makes use of ICT in a number of different ways.

1 The airline collects data on its customers.

(a) Using an example, show how data collected by the airline about its customers can become information.

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..... [3]

(b) The airline collects the data on potential customers from direct and indirect sources.

Describe **two** advantages of gathering the data from an indirect source.

1

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2

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..... [4]

- (c) Customers can obtain information on different airlines and flights from holiday brochures or from the internet.

Compare the use of holiday brochures and the internet as means of obtaining information on airlines and flights.

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..... [3]

2 The airline has a database of customer names and addresses.

(a) Identify the most appropriate data type for the following fields:

House number

Price of tickets

Telephone number [3]

(b) Data entered into the database needs to be verified.

(i) What is the purpose of verification?

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

(ii) Describe how proof reading works as a method of verification.

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..... [2]

(c) The database contains tables, records and fields.

(i) Describe how these database elements are related to each other.

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..... [3]

(ii) Explain the purpose of relationships in a database.

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..... [3]

(d) The database structure has been normalised.

Describe **two disadvantages** of normalisation.

1

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..... [4]

(e) The database makes use of simple and complex queries.

(i) What is the difference between a simple and a complex query?

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..... [2]

(ii) Give an example of a simple query and a complex query that could be used to search the customer database.

Simple

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Complex

..... [2]

5 At the airport, the airline needs to give announcements of flights.

Describe **two** advantages of using sound as a means of making announcements.

1

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2

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..... [4]

6 The airline has many offices throughout the world.

Explain how a lack of standardisation amongst the software used could affect the airline.

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..... [3]

8 The airline occasionally needs to use material from another document in its presentation.

(a) Identify **three** stages, in order, required to export and import files between applications with no common file format.

Stage 1

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Stage 2

.....

Stage 3

..... [3]

(b) Describe **two** advantages of using clipart in the presentation.

1

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2

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..... [4]

(c) Some of the images used in the presentation are vector graphics.

Evaluate the suitability of using vector graphics in the airline's presentations.

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..... [4]

9 The presentation often contains maps of the routes of the aeroplanes.

(a) Describe how a cartography graphics library may be used when creating the presentation of the routes.

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..... [2]

(b) Describe **one disadvantage** of graphic libraries.

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..... [2]

(c) Describe how the presentation can be reformatted to be used with a touch screen in the aeroplane.

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..... [4]

10 The airline uses a spreadsheet to work out the wages for its employees.

(a) Describe how variables and functions could be used in the spreadsheet.

Variables

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Functions

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..... [4]

(b) Describe absolute and relative referencing and give examples of each relating to the wages spreadsheet.

Absolute

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.....

Example

..... [2]

Relative

.....

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Example

..... [2]

(c) Give **two disadvantages** of using spreadsheet software to work out the wages for the employees.

1

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2

..... [2]

11 The airline needs to comply with the Data Protection Act (DPA) (1998).

(a) Explain the purpose of the DPA.

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..... [3]

(b) Explain the implications of the DPA for the airline.

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..... [3]

12 Explain how the airline can use biometric security systems to protect access to data.

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..... [3]

13 Three health problems suffered by airline office employees are deep vein thrombosis, backache and eyesight defects.

(a) Describe how the employees could recognise these health problems.

Deep vein thrombosis

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Backache

.....

Eyesight defects

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

(b) For each health problem, give an appropriate different solution.

Deep vein thrombosis

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Backache

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Eyesight defects

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

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