OCR
RECOGNISING ACHIEVEMENT

ADVANCED SUBSIDIARY GCE

INFORMATION AND COMMUNICATION TECHNOLOGY   **G061**
Information, Systems and Applications

Candidates answer on the question paper

OCR Supplied Materials:
None

Other Materials Required:
None

Monday 12 January 2009
Afternoon

Duration: 2 hours

Candidate Forename		Candidate Surname	

Centre Number						Candidate Number				

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**, of which 4 marks are allocated to the assessment of the quality of written communication where an answer requires a piece of extended writing.
* No marks will be awarded for using brand names of software packages or hardware.
* This document consists of **20** pages. Any blank pages are indicated.

A boat hire company has a head office in Cornwall and offers day trips to go whale watching. The company has a website where customers can look at the different types of trips offered and email for further information.

1 The website collects data from potential customers.

(a) (i) Describe the term data.

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.... **[2]**

(ii) Give an example of data.

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.... **[1]**

(b) The company uses information and knowledge when answering customers' emails.

Describe the difference between information and knowledge.

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.... **[2]**

(c) The quality of information received by the company can be variable.

Describe, using examples related to the boat hire company, how the following can affect the quality of information given by the customer:

Completeness ....

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.... **[2]**

Relevance ....

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.... **[2]**

Accuracy ....

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.... **[2]**

Turn over

2 The company stores details of customers and bookings in a database.

(a) Fig. 1 shows part of the bookings table.

Customer name	Customer address	Booking	Booking
Paul Purple	The Street, Poole, Dorset.	24/07/09	
Maxine Mauve	14, Lake End, Maidstone, Kent.	20/06/09	31/07/09
Yasmin Yellow	28c Boxley Road, Norwich, Norfolk.	14/5/08	17/5/09
William White	The Grange, Keswick, Cumbria.	31/08/09	

Fig. 1

Identify **three** characteristics of the data that show that it is **not** in first normal form.

1 ....

....

2 ....

....

3 ....

.... **[3]**

(b) Two of the entities in the database are CUSTOMER and BOOKING.

What is the relationship between CUSTOMER and BOOKING?

.... **[1]**

(c) Describe **three** components of a data dictionary.

1 ....

....

....

....

2 ....

....

....

3 ....

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.... **[6]**

(d) Explain why the integer data type is **not** appropriate for storing a telephone number.

....

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.... **[2]**

3 The website has been updated.

One section contains thumbnails of photographs of wildlife seen on the trips.

(a) Explain why the company has chosen to use thumbnails.

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.... **[4]**

(b) The company uses bitmap graphics for the photographs on its website.

Describe **two** characteristics of bitmap graphics.

1 ....

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2 ....

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.... **[4]**

(c) Describe how the Copyright, Designs and Patents Act (1988) can be used to protect the use of the images on the website.

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.... **[4]**

4 A booking form has been created for the website. When the information is received from the website it 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]**

5 Draw a diagram to show the input, process, storage and output of the following stages:

- the information received from the booking form on the web is encoded
- it is then saved in the database
- if the booking can be made, the customer is sent a confirmation email
- if the booking cannot be made, the customer is sent an email offering an alternative date and time.

[5]

6 The company is opening a booking office on the wharf next to the boats. They need a computer in the booking office.

(a) Describe **three** advantages to the company of networking the booking office to their head office.

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2 ....

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.... **[6]**

(b) Describe the difference between hardware and software.

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.... **[2]**

(c) Utility software and operating system software are installed on the computer.

Describe the role of each type of software.

Utility Software ....

....

....

.... **[2]**

Operating System Software ....

....

....

.... **[2]**

7 The data recorded during the day at the booking office needs to be backed up and taken off-site every night.

(a) (i) Identify an appropriate storage device to back up the data.

....

.... **[1]**

(ii) Justify your choice of storage device.

....

....

....

.... **[2]**

(b) Explain how passwords and firewalls can be used to protect the data.

Passwords ....

....

....

.... **[2]**

Firewalls ....

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.... **[2]**

8 Desktop publishing software is installed onto the computer.

Identify **three** tasks that the company can use desktop publishing software for.

1 ....

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2 ....

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3 ....

.... **[3]**

Turn over

9 The company is considering using an on-line training system for the staff to learn how to use the computer.

Describe **three** characteristics of an on-line training system.

1 ....

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2 ....

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3 ....

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.... **[6]**

10 The company has a touch screen monitor outside its office that runs a presentation which visitors can use to find out information about the boat trips.

   (a) Identify **three** form controls that could be used and for each give an example of its use in the presentation.

   Form control 1 ....

   ....

   Example ....

   ....

   Form control 2 ....

   ....

   Example ....

   ....

   Form control 3 ....

   ....

   Example ....

   .... **[6]**

   (b) The visitors who use the presentation will include expert and novice users.

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

   ....

   ....

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   .... **[4]**

11 Modelling software is used by the company to create a model of a new boat it is considering building.

(a) Give **two** reasons why a computer model of the boat is created.

1 ....

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2 ....

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.... **[4]**

(b) The company uses a spreadsheet to store its accounts.

Describe the terms worksheets, cells and ranges and give an example of how each would be used in the accounts spreadsheet.

Worksheets ....

....

Example ....

.... **[2]**

Cells ....

....

Example ....

.... **[2]**

Ranges ....

....

Example ....

.... **[2]**

12 The company is writing to all its customers to let them know about the new boat.

(a) Describe the following characteristics of documents and give an example of how each would be used by the company.

Header ....

....

Example ....

.... **[2]**

Paragraph ....

....

Example ....

.... **[2]**

Frame ....

....

Example ....

.... **[2]**

(b) The company will use mail merge to produce the letters.

Identify the steps, in order, involved in creating a mail merge.

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.... **[3]**

Turn over

(c) Describe **two** advantages of using mail merge for producing the letters to customers.

1 ....

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2 ....

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.... **[4]**

13 Give reasons why the company needs a house style for its documents and presentations.

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.... **[4]**

14 Discuss possible future developments in ICT and their impact on transport in the UK.

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

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.... **[11]**

[Total: 120]

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