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Monday 6 June 2016 – 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	
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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**.
- Quality of written communication will be assessed in questions marked with an asterisk (*).
- This document consists of **20** pages. Any blank pages are indicated.

Camping4Fun is a company that runs an online store specialising in the sale of camping equipment.

1 The online store contains information on products for sale.

(a) One definition of information is:

Information = data + context + meaning + structure.

State what is meant by context and structure and give an example of each.

Context

.....

Example

.....

Structure

.....

Example

.....

[4]

(b) Two characteristics of data are that it is made up of alphanumeric characters, and it has no context, structure or meaning.

Identify **two other** characteristics of P1324Z that makes it data.

1

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2

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[2]

3

(c) The online store uses information from indirect sources in its review of products it sells.

Explain **two advantages** of using an indirect source to obtain information to use for product reviews.

1

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2

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[4]

2 Camping4Fun has offices and a warehouse where online orders are received and dispatched.

(a) Camping4Fun has installed a stock control system.

Describe **three** ways Camping4Fun could make use of the stock control system.

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2

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3

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[6]

(b) (i) The stock control system uses a forms interface.

Describe **two** characteristics of a forms interface used in a stock control system.

1

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2

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[4]

(ii) Identify **three other** types of interface that could be used.

1

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2

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3

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[3]

3 When a new customer places an order they are asked to register.
When they register, they choose a username and password.
If the username has already been used, they are asked to choose a different one.
This continues until the username chosen is unique.

Using the example above, describe the terms:

Input

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Processing

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[4]

6 Camping4Fun has been invited to give a presentation about camping accessories.

It has hired a designer to create a house style for the presentation.

(a) (i) Explain **two advantages** of having a house style.

1

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2

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[4]

(ii) Identify **two** elements the designer would include in the house style of the presentation.

1

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2

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[2]

(b) Camping4Fun wants images to go into the presentation.

Describe **two disadvantages** of using an image library to select images for the presentation.

1

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2

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[4]

(c) Camping4Fun could use vector or bitmap images in the presentation.

Describe **two** characteristics of **vector** images.

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[4]

(d) Camping4Fun could use a computer and projector or printed acetate to deliver the presentation.

(i) Describe **two disadvantages** of using a computer and projector, instead of printed acetate, to deliver a presentation.

1

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2

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[4]

(ii) Describe **two advantages** of the presentation being hierarchical.

1

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2

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[4]

(e) Describe the following features of presentation software that could be used in the presentation.

Hotspots
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Video
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[4]

(f) Identify **three** possible safety problems that should be considered when setting up and delivering the presentation.

1
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2
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3
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[3]

7 Camping4Fun has decided to update its stock control and customer management database.

(a) The database contains real and boolean data types.

Describe the following data types and give an example of the use of each in the database.

Real

Use

Boolean

Use

[4]

(b) Identify the most appropriate data type for the following fields.

Number in stock

Description of item

[2]

(c) The database is made up of tables, records and fields.

Describe what is meant by the following terms.

Table

Record

Field

[6]

(d) The database contains the following entities: CUSTOMER, ORDER, SUPPLIER, PRODUCT.

Identify the degree of the relationship between the following entities.

PRODUCT and SUPPLIER

.....

CUSTOMER and ORDER

.....

ORDER and PRODUCT

.....

[3]

(e) The database has been normalised.

(i) One characteristic of 2NF is that the data must already be in 1NF.

Identify **one other** characteristic of 2NF.

.....

..... [1]

(ii) One characteristic of 3NF is that the data must already be in 2NF.

Identify **one other** characteristic of 3NF.

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..... [1]

8 The database will have a customised user interface.

(a) Using examples, describe **two** ways the user interface for the database could be customised.

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[4]

(b) Explain **two disadvantages** of customising the user interface of the database.

1

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[4]

9 The database has many different queries. Some of them contain static parameters, others contain dynamic parameters.

(a) Describe what is meant by a parameter.

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..... [2]

(b) What is the difference between a static and dynamic parameter?

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..... [1]

10 The network manager at Camping4Fun is a member of the BCS.

Explain **two advantages** to the network manager of belonging to a professional body, such as the BCS.

1
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2
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..... [4]

11 The network manager has installed a network in the warehouse and offices.

Describe **three disadvantages** to the **employees** of the computers being networked.

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[6]

12 Camping4Fun needs to conform with the requirements of the Data Protection Act (1998) (DPA).

One of the requirements of the DPA is that data on individuals must be kept secure. Camping4Fun meets this requirement by using passwords on the system and locked doors.

(a) Describe **two other** security measures Camping4Fun could introduce to keep the data secure.

1

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2

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[4]

(b) Identify **three other** requirements of the DPA. For **each** requirement describe a measure Camping4Fun could implement to make sure it is met.

1

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Measure

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2

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Measure

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3

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Measure

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[6]

18

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