

**OCR**

Oxford Cambridge and RSA

**Monday 1 June 2015 – 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				
---------------	--	--	--	--	--	------------------	--	--	--	--

**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**.
- Your quality of written communication is assessed in the question marked with an asterisk (\*).
- This document consists of **20** pages. Any blank pages are indicated.

Answer **all** the questions.

Greenfingers@Coventry is a gardening business. It provides mowing and weeding services to customers.

The business is looking to expand. An advert is being produced to promote its services.

1 (a) Using examples, describe what is meant by:

accuracy of information: .....

.....

.....

.....

presentation: .....

.....

.....

.....

[4]

(b) Greenfingers@Coventry could use different types of sources to find information to go into the advert.

Compare the use of static and dynamic sources to **find** information to go into the advert.

.....

.....

.....

.....

.....

.....

.....

..... [4]

3

(c) The advert will include both text and images.

Describe **two** advantages to Greenfingers@Coventry of using clipart images in the advert.

Advantage 1: .....

.....

.....

.....

Advantage 2: .....

.....

.....

.....

[4]

2 Greenfingers@Coventry hopes that the advert will bring in new customers. It has created a spreadsheet model to assist with analysing the new business it hopes to get.

(a) One 'what-if' question Greenfingers@Coventry could ask is:  
What if we gained 30 new customers – how many new gardeners would we need to employ?

Identify **two other** 'what-if' questions Greenfingers@Coventry could ask about the possible expansion of the gardening business.

1 .....

.....

2 .....

.....

[2]

(b) Using examples, describe how Greenfingers@Coventry could make use of cells and ranges in the spreadsheet model of the possible expansion of the gardening business.

Cells: .....

.....

.....

.....

Ranges: .....

.....

.....

.....

[4]

3 Greenfingers@Coventry is employing new office staff. One of the new staff is visually impaired.

(a) (i) Describe **two** specialist **hardware** devices Greenfingers@Coventry could purchase to assist the visually impaired member of staff.

1 .....

.....

.....

.....

2 .....

.....

.....

.....

[4]

(ii) Describe **two** specialist pieces of software Greenfingers@Coventry could install to assist the visually impaired member of staff.

1 .....

.....

.....

.....

2 .....

.....

.....

.....

[4]

(b) Greenfingers@Coventry is concerned about the amount of time office staff are using the computers.

Describe how the following health problems could be **caused**. For each give an appropriate, different solution.

Repetitive strain injury (RSI): .....

Solution: .....

Eyesight defects: .....

Solution: .....

[4]

4 Greenfingers@Coventry uses a template to create a personalised quotation for each customer.

(a) Describe **two** advantages of using a template to create the quotation.

Advantage 1: .....  
.....  
.....  
.....

Advantage 2: .....  
.....  
.....  
.....

[4]

(b) The quotation will contain sections and footers.

Give an example of how a section and a footer could be used in the quotation.

Section: .....  
.....

Footer: .....  
.....

[2]

- 5 Greenfingers@Coventry uses software to create a model of the customer's garden so they can see what it will look like over the next year.

Describe **two** disadvantages of using software to create a model of the garden.

Disadvantage 1: .....  
.....  
.....  
.....

Disadvantage 2: .....  
.....  
.....  
.....

[4]

- 6 Greenfingers@Coventry is investigating using a computerised invoicing system.

Describe **three** characteristics of a computerised invoicing system Greenfingers@Coventry could use.

Characteristic 1: .....  
.....  
.....  
.....

Characteristic 2: .....  
.....  
.....  
.....

Characteristic 3: .....  
.....  
.....  
.....

[6]

- 7 Greenfingers@Coventry wants to set up a website with an online booking form that would allow customers to book appointments for gardening services.

(a) Describe **two** form controls that could be used to customise the online booking form.

Control 1: .....

.....

.....

.....

Control 2: .....

.....

.....

.....

[4]

(b) Some of the data entered by the customer will be encoded.

- (i) Complete the table below giving examples of data that could be encoded on the online booking form. The first one has been done for you.

Original Data	Encoded Data
Female	F

[2]

- (ii) Describe **two** disadvantages of encoding the data submitted by the online booking form.

Disadvantage 1: .....

.....

.....

.....

Disadvantage 2: .....

.....

.....

.....

[4]

10

(c) When Greenfingers@Coventry receives a booking request from the website, it is given the following details:

- name, email and address of customer
- date services required
- time services required
- list of the services required.

Greenfingers@Coventry checks the appointments diary to see if the request can be met.

If the request can be met:

- the customer is informed by email that the booking has been confirmed
- the booking is written in the diary.

If the request cannot be met:

- the customer is sent an email to say that the booking has been declined.

Draw a diagram to show the input, process, storage and output stages for the above system.

[5]

- (d) Greenfingers@Coventry wants to expand the website to allow customers to pay their invoices online.

One method of payment is credit card.

- (i) Check digit validation is one validation method applied to the credit card number when it is entered.

Describe the check digit method of validation.

.....  
.....  
.....  
..... [2]

- (ii) Identify **two** other validation methods that could be used on the **expiry date** of the credit card when it is entered into the website.

Method 1: .....  
.....  
Method 2: .....  
..... [2]

8 Greenfingers@Coventry is computerising its appointments system. A database has been recommended as the most appropriate software to use.

(a) Justify the use of database software for this task.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
..... [6]

(b) (i) Describe the **purpose** of foreign keys in a database.

.....  
.....  
.....  
..... [2]

(ii) Describe the **purpose** of referential integrity in a database.

.....  
.....  
.....  
..... [2]



(e) Four of the entities in the completed database are:

- stock (for example, plants and fencing. Each stock item is supplied by one supplier.)
- suppliers (companies or individuals who supply the stock. An individual supplier can provide different items of stock.)
- customers (individuals who employ Greenfingers@Coventry to provide gardening services)
- invoices (costs for each job, including stock used, completed for a customer by its employees)

Create an entity relationship diagram (ERD) for the above scenario, identifying the degree of the relationship between the entities. [4]

9 Greenfingers@Coventry wants to hold a party to celebrate 15 years since it was formed.

Mail merge will be used to create invitations to send to customers.

Describe **two** advantages of using mail merge to create personalised invitations to send to customers.

Advantage 1: .....  
.....  
.....  
.....

Advantage 2: .....  
.....  
.....  
.....

[4]

10 Greenfingers@Coventry has been asked to give a presentation about plants to a local gardening society.

(a) Describe the following features of presentation software that could be used in the presentation:

hyperlink: .....

.....

.....

.....

animation: .....

.....

.....

.....

[4]

(b) Describe **two** advantages of using a computer and projector instead of printed acetate to deliver the gardening presentation.

Advantage 1: .....

.....

.....

.....

Advantage 2: .....

.....

.....

.....

[4]

11 Greenfingers@Coventry needs to back up and archive the customer data held on the computer system.

(a) Describe the difference between backing up and archiving the customer data.

.....  
.....  
.....  
..... [2]

(b) The data held on the computer system must be kept secure.

Describe **two** methods that could be used to protect the data stored on the system from theft.

Method 1: .....  
.....  
.....  
.....

Method 2: .....  
.....  
.....  
.....

[4]

12 (a) Identify **two** principles of the Data Protection Act (1998) that could affect how Greenfingers@Coventry conducts its business.

Principle 1: .....

.....

Principle 2: .....

.....

[2]

(b) The website contains many original designs and images of gardens to which Greenfingers@Coventry holds the copyright.

Describe **two** problems Greenfingers@Coventry could face when trying to enforce its copyright under the Copyright, Designs and Patents Act (1988).

Problem 1: .....

.....

.....

.....

Problem 2: .....

.....

.....

.....

[4]



