



Cambridge Assessment International Education
Cambridge International General Certificate of Secondary Education

CANDIDATE
NAME

CENTRE
NUMBER

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CANDIDATE
NUMBER

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INFORMATION AND COMMUNICATION TECHNOLOGY

0417/31

Paper 3 Data Analysis and Website Authoring

February/March 2019

2 hours 30 minutes

Additional Materials: Candidate Source Files are required.

READ THESE INSTRUCTIONS FIRST

Write your name, centre number and candidate number in the spaces at the top of this page.

Write in dark blue or black pen.

Do not use staples, paper clips, glue or correction fluid.

DO NOT WRITE IN ANY BARCODES.

You must **not** have access to either the internet or any email system during this examination.

Carry out **all** instructions in each step. You can track your progress through the examination by crossing out each question number.

Enter your **name**, **centre number** and **candidate number** on every printout before it is sent to the printer.

Printouts with handwritten candidate details on them will **not** be marked.

At the end of the examination, put this **Question Paper** and **all your printouts** into the Assessment Record Folder.

If you have produced rough copies of printouts, put a neat cross through each one to indicate that it is **not** the copy to be marked.

Any businesses described in this paper are entirely fictitious.

The number of marks is given in brackets [] at the end of each question or part question.

Write today's date in the box below.

This syllabus is regulated for use in England, Wales and Northern Ireland as a Cambridge International Level 1/Level 2 Certificate.

This document consists of **8** printed pages.

Task 1 – Evidence Document

- Open the file **m1931evidence.rtf**
- Make sure your name, centre number and candidate number appear on every page of your Evidence Document by placing these in the header.
- Save this as a word processed document in your work area with the file name **m1931evidence** followed by your candidate number, for example, **m1931evidence9999**

You will need to place screenshots and your answers in this Evidence Document.

Task 2 – Web Page

You will evaluate a web page designed for children aged 2 to 3 to help them identify colours. When they click on a word, the name of the colour is output through speakers and the colour appears in the circle. The web page looks like this:



- 1 • Evaluate this web page for the intended audience.

[4]

EVIDENCE 1

Type your evaluation into your Evidence Document using no more than 100 words.

- 2 • State the most appropriate web development layer to:

- set the background colour of all pages in a website
- create a hyperlink to another web page
- collapse all table borders
- enlarge an image when the user hovers the cursor over it.

[4]

EVIDENCE 2

Type your answers into your Evidence Document.

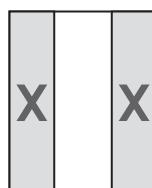
You work for Hothouse Design and will develop web pages for a small British company called Gloria's Glorious Gardens.

Efficient markup and stylesheets must be used. All colour codes must be in hexadecimal.

- Create a new folder called **GGG_html**
- Locate the following files and store them in your *GGG_html* folder.

**Apple.jpg
Camellia.jpg
Cherry.jpg
Forsythia.jpg
GGGlogo.png
GGGstyle.css
GGGtext.txt
Lilac.jpg**

- 3 • Open and resize the image **Lilac.jpg** so that it is **672** pixels wide and **896** pixels high.
- Save the image with the file name **Lilac1.jpg** [1]
- 4 • Remove the left and right of the image to make it **271** pixels wide and **896** pixels high, like this:



- Save the image with the file name **Lilac2.jpg** [2]
- 5 • Display the contents of your *GGG_html* folder showing the folder name, all file names, extensions, file sizes and image dimensions. [1]

EVIDENCE 3

Take a screenshot of your *GGG_html* folder and place this in your Evidence Document.

- 6 • Create a web page called **Spring.htm**
- This web page must work in all browsers and will have a table structure as shown below:

A 800 × 100		
B 300 × 225	C 225 × 225	D
E 300 × 225	F 225 × 225	
G 300 × 225	H 225 × 225	275 × 900
I 300 × 225	J 225 × 225	
K 800 × 150		

- Each table cell is identified with a letter and all dimensions are in pixels. The letters and dimensions shown in the table must **not** appear on your final web page.
- All table borders must be visible and have a width of **2** pixels.

[13]

- 7 • Place in cell A the text:

Spring flowering trees and shrubs

- Set this text as style h1.

[2]

- 8 • Place in cell:

- C the text **Apple**
- F the text **Camellia**
- H the text **Cherry**
- J the text **Forsythia**

- Set this text as style h2.

[2]

- 9 • Place in cell:
- D the image *Lilac2.jpg* saved in step 4
 - B the image of the Apple tree
 - E the image of the Camellia
 - G the image of the Cherry tree
 - I the image of the Forsythia.
- In the markup, resize each of these images to 290 pixels wide while maintaining the aspect ratio.

[3]

- 10 • Place in cell K the text from the file **GGGtext.txt**
- Replace the text <insert your name, centre number and candidate number here> with your name, centre number and candidate number.
 - Set this text as style h3.

[2]

- 11 • Make only the text *link* a hyperlink to send an email message to:
hothouse-design@cambridgeinternational.org with the subject line **Ask the expert**
- 12 • Make sure appropriate text is displayed if an image is not available.
- 13 • Attach the stylesheet **GGGstyle.css** to your web page.
- Save the web page in your *GGG_html* folder.

[1]

You will create a second stylesheet using the most efficient syntax. Make sure your stylesheet does **not** contain any html.

- 14 • Create a new stylesheet called **GGG** followed by your candidate number, for example: **GGG9999.css**
- Place your name, centre number and candidate number as a comment at the bottom of this stylesheet.
 - Edit this stylesheet so that:
 - the image *GGGlogo.png* becomes the single background image placed at the top right of each page
 - all tables are left aligned in the browser
 - all table borders are visible and 2 pixels wide.
 - Save your stylesheet and attach it to your web page. Make sure that your new stylesheet has a higher priority than *GGGstyle.css*

[9]

- Display the web page in your browser. If necessary, resize it so that:
 - all the page can be seen
 - all text can be easily read
 - the address bar is visible.

EVIDENCE 4

Take screenshot(s) of the browser window and place this in your Evidence Document.

- Display the html source in your editor.

EVIDENCE 5

Take a copy of the HTML source and place this in your Evidence Document.

- Display the new stylesheet in your editor.

EVIDENCE 6

Take a copy of your new stylesheet and place this in your Evidence Document.

[Total: 50]

Task 3 – Spreadsheet

You are going to prepare a spreadsheet model for use by employees of Gloria's Glorious Gardens.

- 15 • Open these files in a spreadsheet package and examine their contents:

- Trees.csv**
- Category.csv**
- TreeCodes.csv**

- In the *Trees* spreadsheet place:

- your name, centre number and candidate number on the right in the header
- an automated file name including the file path on the left in the footer.

[2]

- 16 • In the *Trees* spreadsheet, insert three new rows before row 1.

- Edit the file so that it looks like this:

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	<i>Gloria's Glorious Gardens</i>												
2	Native British trees and shrubs												
3	Common name	Latin name	Code	Category	Height (m)	Lcode	Tcode	Dcode	Likes	Tolerates	Dislikes	Evergreen	Notes
4	Alder	Alnus glutinosa	LT		25		W					N	
5													

- Save this as a spreadsheet with the file name **Trees_** followed by your centre number and candidate number, for example, **Trees_ZZ999_9999**

[9]

- 17 • Take a screenshot showing only cells A1 to M5 of your spreadsheet, including the row and column headings. Make sure the contents of the cells are fully visible. [1]

EVIDENCE 7

Place this screenshot in your Evidence Document.

- 18 • Enter a function in cell D5 to look up the *Type* of tree or shrub from the source file *Category.csv*
- Do **not** edit this source file.

[5]

The *Lcode*, *Tcode* and *Dcode* columns hold codes for whether a tree or shrub *Likes*, *Tolerates* or *Dislikes* certain environmental factors.

- 19 • Enter functions in cells I5, J5 and K5 to look up the *Environment factors* from the source file *TreeCodes.csv*
- Do **not** edit this source file.
 - Make sure that when these functions are used they do not display any error messages.

[6]

- 20 • Replicate the functions entered in steps 18 and 19 so that the results are displayed for all trees. [1]

- 21 • Hide columns C, F, G and H [1]

- 22 • Save and print the spreadsheet showing the formulae. Make sure:
- only rows 1-29 are visible
 - it is in landscape orientation
 - row and column headings are displayed
 - the contents of all cells are fully visible.

[1]

PRINTOUT 1

Make sure that you have entered your **name**, **centre number** and **candidate number** on your spreadsheet showing the formulae.

- 23 • Create a spreadsheet extract from the data to show trees or shrubs that are:
- a small tree, large shrub or medium shrub
 - evergreen
- The extract must display only the *Common name*, *Likes*, *Tolerates*, *Dislikes*, *Evergreen* and *Notes* columns for the selected data.
- Print the spreadsheet extract showing the values. Make sure the:
- printout fits on a single page
 - header, footer and contents of the specified cells are fully visible.

[4]

PRINTOUT 2

Make sure that you have entered your **name**, **centre number** and **candidate number** on your spreadsheet showing the extracted values.

- Save and print your Evidence Document.

PRINTOUT 3

Make sure that you have entered your **name**, **centre number** and **candidate number** on your Evidence Document.

[Total: 30]

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