Cambridge IGCSE

Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CANDIDATE NAME	

CENTRE NUMBER		CANDIDATE NUMBER	

INFORMATION AND COMMUNICATION TECHNOLOGY **0417/31**

Paper 3 Data Analysis and Website Authoring **May/June 2017**

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.
Do **not** use the internet or email.

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 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.

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 document consists of **7** printed pages and **1** blank page.

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[Turn over

Task 1 – Evidence Document 1

- Open the file **1731evidence.rtf**

- Make sure your name, Centre number and candidate number will appear on every page of your Evidence Document by placing these details in the header.

- Save this as a word processed document in your work area with the filename **1731evidence** followed by your candidate number, for example, **1731evidence9999**

You will need your Evidence Document during the examination to enter answers to questions and to place your screenshots in when required.

Task 2 – Web Page

You work for Tawara Web and are going to help some trainees develop web pages to teach students about website authoring.

- Create a new folder called **html_1731**

- Locate the following files and store them in your **html_1731** folder.
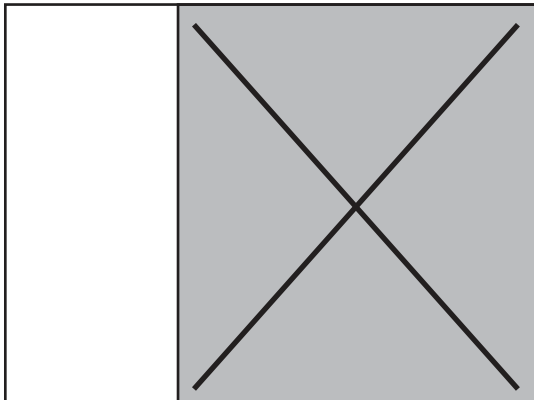
  1731san1.png

  st1731.css

  tab1731.css

1   •   Open the file **1731san1.png** in a suitable application.

- Resize the image so that it is 704 × 528 pixels.

- Save the image with filename **1731san2.png**

[1]

2   •   Remove the right of the image to make it 230 pixels wide and 528 pixels high, like this:

- Save the image with filename **1731san3.png**

[2]

3 • Display the contents of your *html_1731* folder showing the folder name, image dimensions, all file names, extensions and file sizes. [1]

> **EVIDENCE 1**
>
> Take a screenshot of your *html_1731* folder and place this in your Evidence Document. Make sure that the folder name, image dimensions, all file names, extensions and file sizes are clearly visible.

4 • Evaluate in your own words other changes that you could make to this image to make it more suitable for use in the web page. [4]

> **EVIDENCE 2**
>
> Type your evaluation into your Evidence Document using no more than 100 words.

5 • Create a web page called **1731links.htm**

This web page must work in all browsers and will have a table structure with visible borders and gridlines, as shown below.

Text shown in bold must be entered onto your web page.

The texts in italics are instructions you must do.

Replace text in <chevrons> with answers/image/candidate details as instructed:

Using hyperlinks		
		set in style h1
<Place image saved in step 2 here>	**The function of a hyperlink:** *set in style h3*	<Enter your answer to question 6 here> *set in style h2*
	When used with a website, absolute and relative file paths can be explained as: *set in style h3*	<Enter your answers to question 7 here> *set as a bulleted list with square bullet points*
add appropriate alternative text	**Website created by:** <name, Centre number, candidate number> *set in style h3*	

[17]

6 • Replace the text *<Enter your answer to question 6 here>* with a description in your own words of the function of a hyperlink. Set this as style h2. [2]

7 • Replace the text *<Enter your answers to question 7 here>* with a bulleted list in your own words of three or more items explaining the terms relative file path and absolute file path. [3]

8 • Attach the stylesheet **tab1731.css** to your webpage. [2]

A trainee has started to create a second stylesheet to be added to the web page. The stylesheet is not finished and contains a number of errors.

9 • Open the stylesheet **st1731.css** in a suitable software package.

• The web page and stylesheet must work in any browser and use the most efficient method. All colour codes are in hexadecimal. Make sure your stylesheet contains no html. The specifications for this stylesheet are:

table	size	650 pixels wide
	border	dark green, solid 5 pixels thick
	internal gridlines	dark green, solid 2 pixels thick
	all internal and external borders collapsed	
	cell padding	6 pixels top and bottom
		4 pixels at each side
h1	Colour:	Blue 0, Red 0, Green 50
	Font:	**Palatino**, but if not available then **Times New Roman**, but if not available then **Times**, or if these fonts are not available, the browser's default serif font
		36 pixels high
h2	Font:	16 pixels high
		Left aligned
h3	Font:	16 pixels high
		Alignment centre
List style	Font:	16 pixels high
	This MUST display as a bulleted list with square bullet points.	

• Correct and complete this stylesheet using the information above.

• Add your name, Centre number and candidate number as a comment at the start of the stylesheet.

• Save this stylesheet in your *html_1731* folder. Use the filename **st1731** followed by your candidate number, e.g. **st17319999.css**

• Attach this stylesheet to your webpage so that it has a higher priority than the stylesheet attached in step 8.

[22]

EVIDENCE 3

Take a screenshot showing the content of your stylesheet. Place this in your Evidence Document. Make sure that the file name is clearly visible.

EVIDENCE 4

Display the webpage in your browser. Take screenshot evidence and place this in your Evidence Document.

EVIDENCE 5

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

[Total: 54]

Task 3 – Spreadsheet

Tawara Web use a spreadsheet to record the hours worked each week and calculate each employee's pay. All currency values are in dollars with 2 decimal places. Use the most efficient methods to create this spreadsheet.

10 • Open and examine the file **1731emp.csv** in a spreadsheet package.

   • Save this file as a spreadsheet with the filename **1731emp** and your candidate number, for example, **1731emp9999**

   • Place your name, Centre number and candidate number, centre aligned in the header of the page.

   • On the left in the footer add the text **Last edited on** followed by today's date (automated) and time (automated).

   [2]

11 • Merge cells A1 to G1.

   • Format this merged cell so that:

     ○ text is centre aligned with a white, 24 point, sans-serif font

     ○ it has a dark green background colour.

   [3]

12 • Use cells A5 to B14 to create a named range called **JC**   [1]

EVIDENCE 6

Take screenshot evidence of the creation of this named range and place this in your Evidence Document.

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13 • In cell D18 enter a function to look up the job description for this employee.   [5]

14 • In cell G18 enter a formula to calculate the pay for this employee. This will look up the rate of pay from the *Pay rates* table and multiply it by the number of hours worked. This formula must include an absolute range, two relative references and must not include a named range.

   [5]

15 • Replicate the formulae from steps 13 and 14 for all employees.   [1]

16 • In cell F60 enter a function to calculate the average number of hours worked by the employees.

   • Display this to the nearest whole number.

   [1]

17 • In cell G61 enter a function to calculate the total weekly wage.   [1]

18 • Apply appropriate formatting to your spreadsheet.   [1]

19 • Save and print the spreadsheet showing the formulae. Make sure:

  ○ it is in landscape orientation
  ○ it fits on a single page wide
  ○ the row and column headings are displayed
  ○ the contents of all cells are fully visible.

[2]

> **PRINTOUT 1**
> Make sure that you have entered your **name**, **Centre number** and **candidate number** on your spreadsheet showing the formulae.

20 • Print the spreadsheet showing the values. Make sure:

  ○ it is in portrait orientation
  ○ it fits on a single page
  ○ the row and column headings are not displayed
  ○ the contents of all cells are fully visible.

[1]

> **PRINTOUT 2**
> Make sure that you have entered your **name**, **Centre number** and **candidate number** on your spreadsheet showing the values.

21 • Hide rows 3–15 inclusive.
  • Hide rows 60 and 61.

[1]

22 • Extract only the employees where the job description includes **developer** and who work more or less than their contracted hours.
  • Sort this data into ascending order of **name**.
  • Print only this extract showing the values. Make sure the:

  ○ printout fits on a single page
  ○ contents of all cells are fully visible.

[2]

> **PRINTOUT 3**
> Make sure that you have entered your **name**, **Centre number** and **candidate number** on the extract showing the values.

• Save and print your Evidence Document.

> **PRINTOUT 4**
> Make sure that you have entered your **name**, **Centre number** and **candidate number** on your Evidence Document.

[Total: 26]

8

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