Cambridge Assessment International Education
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 2019**

2 hours 30 minutes

Additional Materials: Candidate Source Files

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 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.

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Task 1 – Evidence Document 1

- Create a new word processed document.
- Make sure your name, centre number and candidate number will appear on every page of this document.
- Save this Evidence Document as a word processed document in your work area as **J1931EVIDENCE** followed by your candidate number, for example, J1931EVIDENCE9999.

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

Task 2 – Spreadsheet

You are going to prepare a spreadsheet for Special-Disk-Sales. This company makes and sells storage devices. The company has 49 employees and the company uses a spreadsheet to record the hours worked each week and calculate the pay of the employees. All employees are paid in euros which must be displayed as two decimal places.

1
- Open and examine the file **j1931emp.csv** in a spreadsheet package.
- Replace the text in cell A1 with:
  SDS Weekly Pay
- Delete rows 3 to 7 inclusive.
- Format the top of the spreadsheet to look like this:

	A	B	C	D	E	F	G	H	I	J	K
1											**SDS Weekly Pay**
3	*Office*			*Job*							
4	*Office code*	*Office name*		*Job code*	*Job description*	*Rate of pay*					
5	A	Amsterdam		S1	Office Sales	€10.00					
6	B	Brussels		SA	Sales Assistant	€8.00					
7	C	Cologne		S2	Sales Accounts	€11.90					
8	D	Dresden		M2	Manufacturing	€10.20					
9	E	Edinburgh		D	Distribution	€8.00					
10	F	Ankara		A	Administration/Office	€8.00					
11	L	London		M1	Manufacturing	€12.50					
12	T	Turin		SM	Sales Manager	€12.25					
13	Z	Zagreb		DM	Distribution Manager	€12.25					
14											
15	*Employees*										
16	*Payroll number*	*First name*	*Last name*	*Office code*	*Job code*	*Office name*	*Job description*	*Contract hours*	*Hours worked*	*Rate*	*Pay*
17	SDS0001	Matthias	O'Neil	F	M1			25			

- Format the merged cell A1 to have white text on a dark green background.
- Save this spreadsheet with the file name **SDS_** followed by your centre number and candidate number, for example, SDS_ZZ999_9999

[11]

2
- Place your name, centre number and candidate number, right aligned in the header.
- Place the text:
  Last revised on: followed by an automated date, then a space and then the automated time, left aligned in the header.

[2]

3 • Create a named range called **offices** using only cells A5 to B13 inclusive. [2]

> **EVIDENCE 1**
> Place in your Evidence Document a screenshot showing how you created this named range.

4 • In cell F17 use a function to look up the office name. Use the *Office code* column for the lookup value and the range *offices* for the array. [4]

5 • In cell G17 use a function to look up the job description. Use the *Job code* column for the lookup. Do **not** use a named range. [5]

6 • In cell J17 use a function to look up the rate of pay. Do **not** use a named range. [3]

7 • In cell K17 use a formula to calculate the pay based on the hours worked by this employee. [2]

8 • Replicate the functions used in steps 4 to 7 for each employee. [1]

9 • In cell I67 use a function to count the number of employees who worked some hours during this week. [3]

10 • In cell K67 use a function to calculate the total pay for all employees. [1]

11 • The *Hours worked* by all employees were the same as their *Contract hours* except for the following:

Name	Hours worked
Alfonso Irizarry	**16**
Sergie Anaya	**24**
Heine Weissmuller	**0**
Tracy Royle	**32**
Sandra Cooper	**0**
Amy Nichols	**34**
Pablo Bravo	**22**
Peggy Hedges	**25**
Tracy Cushing	**16**
Otmar Weber	**12**
Adelina Sanger	**42**
Karl Seiler	**40**

• Place the number of hours worked for each employee in the *Hours worked* column. [1]

12 • Apply appropriate formatting to rows 17 to 67. [1]

13 • Save your spreadsheet.

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

- ○ printout fits on a single page wide
- ○ contents of all cells are fully visible with no split words.

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

[1]

14 • Print your spreadsheet showing the formulae. Make sure:

- ○ it is in landscape orientation
- ○ the row and column headings are displayed
- ○ the contents of all cells are fully visible.

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

[2]

15 • Create a spreadsheet extract showing only the employees who work in *London* or *Zagreb* and have the word *Sales* in their job description. [2]

16 • Sort the extract into ascending order of *Last name*. [1]

17 • Hide rows 3 to 15 inclusive. Hide row 67. [1]

18 • Hide columns D, E, H, I and J. [1]

19 • Print the extract showing the values. Make sure the:

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

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

[1]

20 The start date of each employee will be added to the spreadsheet in three separate cells, one for day, one for month and one for year.
The spreadsheet will only accept numbers as valid data.
Rules are to be used to test that the **month** has been entered as a valid number.
Select data to test these rules. You must use each item of test data only once.

- In your Evidence Document identify an item of test data that you would enter as:
  - **(a)** extreme test data
  - **(b)** another item of extreme test data
  - **(c)** abnormal test data
  - **(d)** normal test data

EVIDENCE 2
Type your answers in your own words into your Evidence Document.

[4]

[Total: 49]

Task 3 – Web Page

21 A new style is to be added to a stylesheet to meet this specification:

> Style h6 must be a 14 point right aligned font. It should be set to Arial, or select the browser's default sans-serif font if Arial is not available.

This was created:

```
.h6   {font-family:Arial;sans-serif;font-size:14pt;text-allign:right}
```

- Evaluate in your own words how effectively this css meets the specification for the style. [4]

> **EVIDENCE 3**
> Type your evaluation in your own words into your Evidence Document.

You are going to create a web page and edit a stylesheet for Special-Disk-Sales. Many of the people who will view the web page have a very slow internet connection. The web page and stylesheet must work in any browser. All colour codes must be in hexadecimal. Make sure that your stylesheet contains no HTML.

22
- Create a new folder called **SDS**
- Locate the following files and store them in your *SDS* folder.

  SDSdisk.jpg
  SDSbutton1.jpg
  SDSbutton2.jpg
  SDSbutton3.jpg
  SDSbutton4.jpg
  SDSstyle.css
  SDStext.txt

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

> **EVIDENCE 4**
> Take a screenshot showing the contents of your *SDS* folder and place this in your Evidence Document. Make sure that the folder name, all file names, extensions, file sizes and image dimensions are clearly visible.

23 • Create a web page called **sds.htm**

• This web page must work in all browsers and will have a table structure as shown below:

<table>
<tr><td rowspan="5">A
400 × 770</td><td colspan="2">B
700 × 170</td></tr>
<tr><td>C
356 × 150</td><td rowspan="4">D
344 × 600</td></tr>
<tr><td>E
356 × 150</td></tr>
<tr><td>F
356 × 150</td></tr>
<tr><td>G
356 × 150</td></tr>
</table>

• 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.

• Table borders must **not** appear on the final web page.

[10]

24 • Place in cell A the image **SDSdisk.jpg**

• Set the width of this image to **400** pixels and maintain the aspect ratio.

[2]

25 • Enter in cell B the text:
Special-Disk-Sales

• Set this text as style h1.

[2]

26 • Using the most appropriate image from **SDSbutton1.jpg** to **SDSbutton4.jpg**, place in cell:

- C the button to select cloud storage
- E the button to select hard disk drives
- F the button to select solid state drives
- G the button to contact the company.

[1]

27 • Make sure appropriate text is displayed if an image is not available. [1]

28 • In cell D place text from the file **SDStext.txt**

• Below this text add the following new paragraph

Updated by: followed by your name, centre number and candidate number

• Set this text as style h2.

[3]

29 • Attach the stylesheet **SDSstyle.css** to this web page. [1]

• Save your web page.

30 • Edit the stylesheet *SDSstyle.css* to meet the following specifications:

h1	font	set to **Arial** or if that is not available to **Helvetica** or if that is not available to the browser's default sans-serif font 52 points high italic centre aligned
	colour	set with no blue or red components, but green set to 7f
h2	font	set to **Arial** or **Helvetica** or the browser's default sans-serif font fully justified text

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

• Save this stylesheet in your *SDS* folder.

EVIDENCE 5

Take a screenshot showing the content of your stylesheet and place this in your Evidence Document. Make sure that all contents and the file name are clearly visible.

[6]

• 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 6

Take a screenshot of the browser window and place this in your Evidence Document.

• Display the HTML source in your editor.

EVIDENCE 7

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

• Save and print your Evidence Document.

PRINTOUT 4

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

[Total: 31]

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