



# Cambridge IGCSE™

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## INFORMATION AND COMMUNICATION TECHNOLOGY

0417/32

Paper 3 Data Analysis and Website Authoring

May/June 2021

2 hours 30 minutes

You will need: Candidate source files (listed on page 2)

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### INSTRUCTIONS

- Carry out **all** instructions in each step.
- Enter your name, centre number and candidate number on every printout before it is sent to the printer.
- Printouts with handwritten candidate details will **not** be marked.
- At the end of the examination, put all your printouts into the Assessment Record Folder.
- If you have produced rough copies of printouts, put a cross through each one to indicate that it is not the copy to be marked.
- You must **not** have access to either the internet or any email system during this examination.

### INFORMATION

- The total mark for this paper is 80.
- The number of marks for each question or part question is shown in brackets [ ].

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This document has **12** pages. Any blank pages are indicated.

You have been supplied with the following source files:

j2132banner.jpg  
j2132camera.csv  
j2132diver.jpg  
j2132housing.csv  
j2132sales.csv  
j2132text.txt  
j2132ump.css  
j2132ump1.jpg  
j2132ump2.jpg  
j2132ump3.jpg  
j2132ump4.jpg

### Task 1 – Evidence Document

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 in your work area as **j2132evidence\_** followed by your centre number\_ candidate number, for example, j2132evidence\_ZZ999\_9999

You will need your Evidence Document during the examination to place screenshots when required.

### Task 2 – Image Editing and File Management

#### 1 Create a new folder called **ump**

Locate the following files and store them in your *ump* folder.

j2132banner.jpg  
j2132diver.jpg  
j2132text.txt  
j2132ump.css  
j2132ump1.jpg  
j2132ump2.jpg  
j2132ump3.jpg  
j2132ump4.jpg

Open the file **j2132diver.jpg** in a graphics package. Crop the image so that all of the diver is visible and it is 1600 pixels wide by 3000 pixels high.

Save this new image in the *ump* folder, in **.png** format using the file name **diver\_** candidate number, for example, diver\_9999

Display the contents of your *ump* folder showing the folder name, all file names, file extensions, image dimensions and file sizes.

[4]

**EVIDENCE 1**

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

[Total: 4]

**Task 3 – Web Page**

You are going to create a web page and stylesheet to show examples of underwater macro photography. The web page and stylesheet must work in any browser. All colour codes except those provided in the source files must be in hexadecimal. Make sure that your stylesheet contains no HTML. Make your HTML and stylesheet as efficient as possible.

**2 Create a web page called `ump.htm`**

This web page must be created using a single table and must work in all browsers. The table must fit 90% of the browser window. The table must have a structure as shown in this diagram:

A height = 15%		
B width = 30% height = 20%	C width = 30%	D width = 40%
E height = 10%	F	
G height = 20%	H	
I height = 10%	J	
K height = 25%		

Each table cell is identified with a letter. Some dimensions are shown. These must be set as percentage values and **not** in pixels.

The cell contents shown in the diagram must **not** appear on your final web page.

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

[13]

- 3 Place in cell:
- A the image **j2132banner.jpg**
  - B the image **j2132ump1.jpg**
  - C the image **j2132ump2.jpg**
  - D the image **diver\_** that you saved in step 1
  - G the image **j2132ump3.jpg**
  - H the image **j2132ump4.jpg**
- [3]
- 4 Place inline style attributes into the HTML, so that each image fits the width of the table cell, with its aspect ratio maintained.
- [3]
- 5 Place in cell:
- E the text **Sponge**
  - F the text **Nurdibranch**
  - I the text **Anemone**
  - J the text **Mushroom eels**
- Apply style h1 to all this text.
- [3]
- 6 Place in cell K the contents of the file **j2132text.txt**
- Display this text as three paragraphs.
- Add, as a fourth paragraph, the text:
- Web page last edited by:** followed by your name, centre number and candidate number
- Apply style h2 to all text in cell K.
- [4]
- 7 Attach the stylesheet **j2132ump.css** to this web page.
- Save your web page.
- [1]

8 Open and edit the stylesheet **j2132ump.css** to meet the following specifications:

Centre align all tables within the browser window.

Set the background for the web page so that it has a colour with a:

- blue component of **d6**
- red component of **6f**
- green component of **ea**

Set the font for styles h1 and h2, so that the browser selects and displays the font **Domino Regular**. If this font is not available, the browser selects and displays the font **Domino**. If neither of these fonts are available, the browser should display its default serif font. Set each of these fonts as black.

Set style h1 so the text is centre aligned with a 24 point font.

Set style h2 so the text is fully justified with a 16 point font.

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

Save this stylesheet in your *ump* folder.

Take a screenshot to show the file name and all contents of your stylesheet.

[15]

### EVIDENCE 2

Place this screenshot in your Evidence Document. Make sure that the contents of your stylesheet can be easily read.

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 3

Place in your Evidence Document screenshot(s) showing the web page in your browser.

Display the HTML source in your editor.

### EVIDENCE 4

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

[Total: 42]

**Task 4 – Printing the Evidence Document**

Save and print your Evidence Document.

**PRINTOUT 1**

Make sure your **name**, **centre number** and **candidate number** appear on every page of your Evidence Document.

**Task 5 – Data Analysis**

*You are going to use a spreadsheet to calculate the sales price of underwater cameras. All currency values must be in pounds (£) to 2 decimal places.*

- 9 Open and examine the files **j2132camera.csv** and **j2132housing.csv** in a spreadsheet package. These files will be used to provide data for your spreadsheet and must **not** be changed.

Open and examine the file **j2132sales.csv** in your spreadsheet. Place the text **Prepared by:** followed by a space, your name, centre number and candidate number right aligned in the header.

Data has been placed into cells B4 and B9 to help you test your model.

Save this spreadsheet with the file name **j2132sales\_centre number\_candidate number**, for example, **j2132sales\_ZZ999\_9999**

[2]

10 Format the spreadsheet to look like this:

	A	B
1	<b>Underwater Macro Photography</b>	
2		
3	<b>Camera</b>	
4	Code	C004
5	Make/Model	
6	Price	
7		
8	<b>Housing</b>	
9	Code	H007
10	Make/Model	
11	Price	
12		
13	<b>Package</b>	
14	Price	
15	Discount %	
16	Discount amount	
17	<b>Package total</b>	

Format the merged cell A1:B1 to contain black 36 point text on a pale blue background.

Format the merged cells A3:B3, A8:B8 and A13:B13 to contain black 18 point text on a pale blue background.

[7]

- 11 Enter a function in cell B5, which depending on the camera code, looks up the make and model of the camera from the file *j2132camera.csv* [5]
- 12 Enter a function in cell B6, which depending on the camera code, looks up the price of the camera from the file *j2132camera.csv* [1]
- 13 Enter a function in cell B10, which depending on the housing code, looks up the make and model of the housing from the file *j2132housing.csv* [1]
- 14 Enter a function in cell B11, which depending on the housing code, looks up the price of the housing from the file *j2132housing.csv* [1]

- 15 Enter a formula in cell B14 to calculate the price of both the camera and the housing. [1]
- 16 Enter a formula in cell B15 to show the discount percentage that will be applied. Use the package price to extract the figure from the discount table. [5]
- 17 Enter a formula in cell B16 to calculate the discount amount to be applied, which is the package price multiplied by the discount percentage. [1]
- 18 Enter a formula in cell B17 to subtract the discount amount from the package price. [1]
- 19 The user enters a code for the camera and a code for the housing.

Enter a formula in cell A19 to display an appropriate error message if the camera code for the housing does **not** match the code for the camera entered by the user. [4]

- 20 Apply appropriate formatting to column B of the spreadsheet. [1]
- 21 Save your spreadsheet.

Print your spreadsheet showing the formulae. Make sure the:

- row and column headings are displayed
- contents of all cells are fully visible and can be easily read.

[1]

**PRINTOUT 2**

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

- 22 Print your spreadsheet showing the values. Make sure the:
- printout fits on a single page
  - row and column headings are **not** displayed
  - contents of all cells are fully visible and can be easily read.

[1]

**PRINTOUT 3**

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



- 23 Model this spreadsheet for a customer who wishes to buy camera **C013** and use it with housing **H025**

Print your spreadsheet showing the values. Make sure the:

- printout fits on a single page
- row and column headings are **not** displayed
- contents of all cells are fully visible and can be easily read.

[2]

**PRINTOUT 4**

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

[Total: 34]

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