Cambridge IGCSE™(9–1)

INFORMATION AND COMMUNICATION TECHNOLOGY **0983/31**

Paper 3 Data Analysis and Website Authoring **May/June 2020**

2 hours 30 minutes

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

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 [ ].

This document has **8** pages. Blank pages are indicated.

[Turn over

You have been supplied with the following source files:

2031-bg.png
2031-board.csv
2031-board.png
2031-logo.png
2031-proc.csv
2031-proc.png
2031-tgc.css
2031-water.png

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 **J2031-Evidence** followed by your candidate number. For example, J2031-Evidence9999.

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

Task 2 – Web Page

You are going to create a web page and edit a stylesheet for Tawara Gaming Computers. 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.

1 Create a new folder called **TGC**

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

   > **2031-bg.png**
   > **2031-board.png**
   > **2031-logo.png**
   > **2031-proc.png**
   > **2031-tgc.css**
   > **2031-water.png**

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

EVIDENCE 1

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

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2 Create a web page called **tgc.htm**

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

```
┌─────────────────────────────────────────────────────────┐
│  ┌───────────────────────────────────────────────────┐  │
│  │ A  750 × 100                                        │  │
│  └───────────────────────────────────────────────────┘  │
│  ┌─────────────────┐   ┌──────────────┐ ┌──────────────┐ │
│  │ B  260 × 470    │   │ C  225 × 225 │ │ D  225 × 225 │ │
│  │                 │   │              │ │              │ │
│  │                 │   │              │ │              │ │
│  │                 │   └──────────────┘ └──────────────┘ │
│  │                 │   ┌──────────────┐ ┌──────────────┐ │
│  │                 │   │ E  225 × 225 │ │ F  225 × 225 │ │
│  │                 │   │              │ │              │ │
│  │                 │   │              │ │              │ │
│  └─────────────────┘   └──────────────┘ └──────────────┘ │
│  ┌─────────────────┐   ┌──────────────┐ ┌──────────────┐ │
│  │ G  260 × 225    │   │ H  225 × 225 │ │ I  225 × 225 │ │
│  │                 │   │              │ │              │ │
│  │                 │   │              │ │              │ │
│  └─────────────────┘   └──────────────┘ └──────────────┘ │
└─────────────────────────────────────────────────────────┘
```

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. The table shows the spacing between cells which will be set when your stylesheet is edited in step 10.

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

[11]

3 Enter in cell A the text:

Tawara Gaming Computers

Set this to style h1.

[2]

4 Place in cell B the image **2031-logo.png**   [1]

5 Place in cell:
   - C the image **2031-proc.png**
   - E the image **2031-board.png**
   - H the image **2031-water.png**

Where necessary, in the HTML, make sure that each image is displayed as 225 pixels wide whilst maintaining the aspect ratio.

[3]

6 Place in cell:
   - D the text **Processors**
   - F the text **Motherboards**
   - I the text **Water cooling systems**

Set this text to style h2.

[2]

7 Enter in cell G the text:

Last edited by:

On a new line enter your name, centre number and candidate number.

Set all the text in cell G to style h3.

[2]

8 Add appropriate alternate text to all images.   [1]

9 Attach the stylesheet **2031-tgc.css** to this web page.

Save your web page.   [1]

10 Open the stylesheet **2031-tgc.css** in a suitable software package. Edit this stylesheet to meet the following specification:

All table borders have a width of **0** and gridlines are separated. All cell spacing within the table is set to **20** pixels. The background colour of the table is black. All tables are centre aligned in the browser. There is no cell padding.

The background image **2031-bg.png** is set to repeat to fill the browser window.

Styles h1, h2 and h3 are green (with no red or blue components) and have the font **Segoe print**, if it is not available then **Verdana**, or if neither of these fonts are available the browser's default sans serif font.

Style h1 is set to **36** points high.

Style h2 is set to **14** points high, left aligned.

Style h3 is set to **12** points high, right aligned.

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

Save this stylesheet in your *TGC* folder.

Take a screenshot of the contents of your stylesheet.

[24]

EVIDENCE 2

Place this screenshot in your Evidence Document. Make sure the file name and all contents are clearly visible.

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: 48]

Task 3 – Printing the Evidence Document

You now need to print your Evidence Document.

PRINTOUT 1

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

Task 4 – Data Analysis

You are going to create a spreadsheet to use as an invoice for Tawara Gaming Computers.

Open and examine the files **2031-proc.csv** and **2031-board.csv**

Do **not** edit or re-save these files. You will require these files for steps 12 to 15.

11 Create and format a new spreadsheet that looks like this:

	A	B	C	D
1	*Tawara Gaming Computers*			
3	Special offer - twin purchase			
5	*Invoice*			
6				
7	Invoice number:			
8	Customer:			
9				
10		Make	Model	Price
11	Processor:			
12	Motherboard:			
14			Subtotal:	
15			Discount:	
16			Invoice total:	
17				

If the cursive font style shown in rows 1 and 5 is not available on your computer you can use another similar font style.

The merged cells in rows 1 and 5 must have the same green font on a black background.

The font in the merged cell in row 3 must have the same green colour as rows 1 and 5 on a grey background.

The text in all cells must contrast with their backgrounds when printed in black and white.

Place your name, centre number and candidate number, right aligned in the header.

Place the text:

Last edited on followed by an automated date, centre aligned in the footer.

Save the spreadsheet with the file name **Invoice_** followed by your centre number and candidate number. For example, Invoice_ZZ999_9999

[14]

The model of the processor and motherboard will be typed into cells C11 and C12 of the invoice spreadsheet. The company offers a 20% reduction in the price of their products, which is calculated in steps 17 and 18.

12   In cell B11 use a function to look up the make of the processor. Use cell C11 for the lookup value and the processor file for the array.   [5]

13   In cell B12 use a function to look up the make of the motherboard. Use cell C12 for the lookup value and the board file for the array.   [3]

14   In cell D11 use a function to look up the price of the processor.   [1]

15   In cell D12 use a function to look up the price of the motherboard.   [1]

16   In cell D14 use a formula to add the price of the processor to the price of the motherboard.   [1]

17   In cell D15 use a formula to calculate the discount that will be offered on this invoice. The discount rate is 20% of the subtotal.   [1]

18   In cell D16 use a formula to calculate the invoice total.   [1]

19   Enter the following data in the appropriate cells in column C of your invoice:

   Processor: **i7-5930K**

   Motherboard: **Prime Z270-P**

                                                                                                                                        [1]

20   Format all currency values as dollars with 2 decimal places.   [1]

21   Save your spreadsheet.

   Print your spreadsheet showing the formulae. Make sure:

   •   it is in landscape orientation
   •   the row and column headings are displayed
   •   the contents of these cells are fully visible and can be easily read.

                                                                                                                                        [2]

PRINTOUT 2

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

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22 Print your spreadsheet showing the values. Make sure the:

- printout fits on a single portrait page
- row and column headings are **not** displayed
- contents of these 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 your spreadsheet showing the values.

[Total: 32]