Cambridge IGCSE

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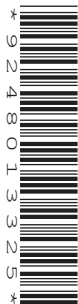
CANDIDATE NAME	

CENTRE NUMBER		CANDIDATE NUMBER	

INFORMATION AND COMMUNICATION TECHNOLOGY 0417/32

Paper 3 Data Analysis and Website Authoring

May/June 2017

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.
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 **8** printed pages.

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Task 1 – Evidence Document 1

- Open the file **1732evidence.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 **1732evidence** followed by your candidate number, for example, **1732evidence9999**

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 are going to help some trainees develop web pages to teach students about website authoring.

1 • Create a new folder called **1732_html**

- Locate the following files and store them in your **1732_html** folder.

  1732switch.png

  1732web.css

  1732ss.css

  [1]

2 • Open the file **1732switch.png** in a suitable application.

- Reduce the colour depth of this image and save it so that it is more suitable for use as a web based image. Do not crop or resize the image.

  [2]

> **EVIDENCE 1**
> Take screenshots before and after, showing how you changed the colour depth of this image and place these in your Evidence Document.
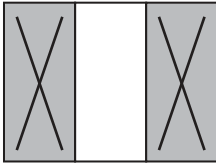
> **EVIDENCE 2**
> Take a screenshot showing the contents of your *1732_html* folder and place this in your Evidence Document. Make sure that the folder name, all file names, extensions and sizes are clearly visible.

3 • Evaluate in your own words your changes to this image. [4]

> **EVIDENCE 3**
> Type your evaluation into your Evidence Document using no more than 100 words.

4 • Crop the image saved in step 2 to remove the left 1/3 and the right 1/3 of the image, like this:

• Save the image with filename **1732img.jpg**

[1]

EVIDENCE 4

Take screenshot evidence of the cropped image.

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5 • Create a web page called **1732upload.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 formatting for each table cell is identified in italics.

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

Uploading and publishing a website *set in style h1*		
The acronym ftp stands for: *set in style h3*	<Enter your answer to question 6 here> *set in style h2*	<Place image saved in step 4 here>
Here are 3 things needed to upload and publish the content of a website using ftp: *set in style h3*	<Enter your answers to question 7 here> *set as a numbered list: 1 to 3*	*Image resized to 200 pixels wide* *Add appropriate alternate text*
Website created by: <name, Centre number, candidate number> *set in style h3*		

[18]

6 • Replace the text *<Enter your answer to question 6 here>* with the meaning of ftp. Set this as style h2. [1]

7 • Replace the text *<Enter your answers to question 7 here>* with a numbered list in your own words of three or more requirements for uploading and publishing the content of a website using ftp. [3]

8 • Attach the stylesheet **1732web.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 **1732ss.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	position size	centre aligned within the browser window 600 pixels wide
h1	Colour: Font:	Blue 80, Red 0, Green 0 **Chalkduster**, but if not available then **Verdana**, or if these fonts are not available, the browser's default sans-serif font 30 points high Alignment centre
h2	Font:	**Arial** or if this font is not available, the browser's default sans-serif font 16 points high
h3	Font:	**Arial** or if this font is not available, the browser's default sans-serif font 14 points high Italicised
List style	Font:	**Arial** or if this font is not available, the browser's default sans-serif font 16 points high

• 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 *1732_html* folder. Use the filename **1732ss** followed by your candidate number, e.g. **1732ss9999.css**

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

[18]

EVIDENCE 5

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 6

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

EVIDENCE 7

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

[Total: 50]

Task 3 – Spreadsheet

You are going to help the trainees analyse data about some average broadband speed tests taken on a single day. Use the most efficient methods.

10 • Open and examine the files **1732Broadband.csv** and **1732Provider.csv** in a spreadsheet package.

    • Save the file *1732Broadband* as a spreadsheet with the filename **Broadband_** and your Centre number and candidate number, for example, **Broadband_ZZ999_9999**

    • In your broadband spreadsheet, place your name, Centre number and candidate number, centre aligned in the footer of the page.

    [1]

11 • Insert two new rows above row 1. [1]

12 • In cell A1 enter the title:
    Broadband speed test data

    • In cell E2 enter the subtitle:
    Speed (in Mb/s)

    [1]

13 • Merge cells A1 to F1.

    • Format this merged cell so that:

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

       ○ it has a black background colour.

    [4]

14 • Merge cells E2 to F2.

    • Format this merged cell as a right aligned subtitle.

    • Merge cells A2 to D2.

    [2]

15 • In cell C4 enter a function to look up the name of the broadband provider from the content of the file *1732Provider.csv* [6]

16 • Replicate this formula for each speed test. [1]

17 • Save your spreadsheet.

   • Print only the cells A1 to F18 showing the formulae. Make sure:

     ○ it is in landscape orientation

     ○ the row and column headings are displayed

     ○ the contents of cells A1 to F18 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.

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18 • Print all of the spreadsheet showing the values. Make sure:

     ○ it is in portrait orientation

     ○ it fits on a single page wide

     ○ 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.

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19 • Place the image **1732logo.jpg** into the merged cell A2:D2

   • Make the image fit the available space in this cell by:

     ○ increasing the height of row 2

     ○ adjusting the image size.

[1]

20 • Extract only the tests with a download speed greater than 30Mb/s for these providers: **Virgin media**, **3**, **Orange** and **Tmobile**.

   • Sort this data into ascending order of **provider**.

   • Print only this extract showing the values. Make sure the:

     ○ printout fits on a single page

     ○ contents of all cells are fully visible.

[3]

PRINTOUT 3

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

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21 • Refine this extract so that only the data with an upload speed of >10 Mb/s is present.

    • Sort this data into descending order of **region** then descending order of **download** speed.

    • 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 4**
> Make sure that you have entered your **name**, **Centre number** and **candidate number** on the extract showing the values.

22 • Calculate, from all the data, the average download speed for each region.

[3]

> **EVIDENCE 8**
> Show evidence of your method of calculation for all the regions, place screenshot evidence of this into your Evidence Document.

23 • Create and fully label a chart to compare this data.

[2]

> **EVIDENCE 9**
> Place a copy of your chart into your Evidence Document.

    • Save and print your Evidence Document.

> **PRINTOUT 5**
> Make sure that you have entered your **name**, **Centre number** and **candidate number** on your Evidence Document.

[Total: 30]