



Cambridge IGCSE™

INFORMATION AND COMMUNICATION TECHNOLOGY

0417/21

Paper 2 Document Production, Data Manipulation and Presentations

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 **12** pages. Blank pages are indicated.

You have been supplied with the following source files:

J2120CATEGORIES.csv
 J2120ENTRY.rtf
 J2120EVIDENCE.rtf
 J2120GROWTH.csv
 J2120GUIDE.rtf
 J2120LOGO.jpg
 J2120MMDATA.csv
 J2120MTB.rtf
 J2120RACE.csv
 J2120RIDER.jpg
 J2120TABLE.csv

Task 1 – Evidence Document

Open the file **J2120EVIDENCE.rtf**

Make sure that your name, centre number and candidate number will appear on every page of this document.

Save this document in your work area as **J2120EVIDENCE** followed by your candidate number, for example: J2120EVIDENCE9999

You will need to place screenshots in this Evidence Document.

Task 2 – Document

You are going to edit a report. The company uses a corporate house style for all its documents. One paragraph style has been created and applied. Additional paragraph styles must be created and applied to the report as instructed.

1 Open the file **J2120MTB.rtf**

The page setup is set to A4, portrait orientation with 2 centimetre margins. Do **not** make any changes to these settings.

Save the document in your work area, in the format of the software you are using, with the file name **MTBSTUDY**

EVIDENCE 1

Place in your Evidence Document a screenshot to show this file has been saved. Make sure there is evidence of the file type.

[1]

2 Place in the header:

- your name, centre number and candidate number left aligned
- automated page numbers right aligned.

Make sure that:

- all the alignments match the page margins
- no other text or placeholders are included in the header or footer areas
- headers are displayed on all pages.

[1]

- 3 Create and store the following styles, basing each on the default paragraph style:

House style specifications							
Style name	Font style	Font size (points)	Alignment	Enhancement	Line spacing	Space before (points)	Space after (points)
MB-title	sans-serif	36	centre	bold	single	0	0
MB-subhead	sans-serif	18	centre	italic, underline	single	0	6
MB-body	serif	12	justified	none	single	0	6

EVIDENCE 2

Place in your Evidence Document a screenshot to show that the style settings have been defined for the *MB-subhead* style. Make sure this style is based on the default paragraph style.

[2]

- 4 Display these custom style names as a list in the style manager/organiser. Provide screenshot evidence of this list.

EVIDENCE 3

Place this screenshot in your Evidence Document.

[1]

- 5 At the start of the document enter the title:

Mountain Bike Study

Apply the *MB-title* style to this text.

[2]

- 6 Enter your name immediately after the subtitle *Revised by*:

The style name *MB-subtitle* has already been created, stored and applied to the subtitle text.

Modify the *MB-subtitle* style so only the following formatting is applied:

Style name	Font style	Font size (points)	Alignment	Enhancement	Line spacing	Space before (points)	Space after (points)
<i>MB-subtitle</i>	sans-serif	18	right	italic	single	0	0

EVIDENCE 4

Place in your Evidence Document a screenshot of these style settings for the *MB-subtitle* style.

[2]

- 7 Apply the *MB-body* style to the rest of the document.

[1]

- 8 Apply square-shaped bullets to the text from:

increased cardiovascular fitness ...

to

... levels, anxiety and depression.

Make sure that:

- the bullets are indented **2** centimetres from the left margin with a hanging indent applied if text wraps to a second line
- the list is in single line spacing with no space between the lines
- there is a 6 point space after the last item in the list.

[3]

- 9 Identify the 5 subheadings in the document and apply the *MB-subhead* style to each one.

[1]

- 10 Change the page layout so that the subheading *Global Market Growth* and all following text is displayed in **2** columns of equal width with a **1** centimetre space between the columns.

[2]

- 11 Locate and copy the sentence

One reason many people ... a lifelong adventure.

so that it appears as a new paragraph after the text *... mental and emotional health.*

[1]

- 12 Using the data in the file **J2120GROWTH.csv** create a vertical bar chart to show the forecast growth of **Cross Country** events only, for the years **2020 to 2023**.

[1]

- 13 Label the chart with the title:

Growth in Cross Country Events

[1]

14 Format the value axis scale to display:

- the title **Number of Events**
- a minimum value of **9000**
- a maximum value of **10500**
- increments of **250**

[3]

15 Display only the values as data labels above each bar.
Do **not** display a category axis title or a legend.

[1]

16 Insert the chart after the paragraph ending *...number of cross country events:*
Make sure that:

- the chart and all data fits within the column width
- all data labels are displayed in full with no overlap.

[1]

17 Import the image **J2120RIDER.jpg** and place it in the paragraph beginning *Most races are organised...*

Crop the image to remove the top third (i.e. most of the sky above the clouds).

Format the image so that:

- it is resized to a width of **3.5** centimetres
- it is aligned to the left of the column and top of the paragraph starting *Most races are organised...*
- the text wraps round the image.

[4]

18 Format the paragraph that starts *Research has shown...* so that it:

- is indented **1** centimetre from both the left and right of the column
- displays an external **3** to **4** point black border.

[2]

19 Spell check and proofread the document.

Make sure that:

- the list, chart and paragraph with the outside border are not split over columns or pages
- there are no widows or orphans
- there are no blank pages
- spacing is consistent between all items.

Save the document using the same file name and format used in Step 1.

Print the document.

PRINTOUT 1

Make sure your **name**, **centre number** and **candidate number** are on your report.

[1]

[Total: 31]

Task 3 – Database

You are now going to prepare some reports. Dates are to be imported in the format of day month year.

- 20** Using a suitable database package, import the file **J2120RACE.csv**
Use these field names and data types:

Field name	Data type	Format
<i>Entry_ID</i>	Text	
<i>Last_Name</i>	Text	
<i>First_Name</i>	Text	
<i>Club</i>	Text	
<i>Cat_Code</i>	Text	
<i>Birth_Date</i>	Date/Time	
<i>Age_Jan</i>	Number	Integer
<i>Laps</i>	Number	Integer
<i>Race_Time</i>	Date/Time	hh:mm:ss
<i>Event_Rank</i>	Text	
<i>Points</i>	Number	Integer
<i>Race_No</i>	Number	Integer
<i>Licence</i>	Boolean/Logical	To display as Yes/No

Set *Entry_ID* as a primary key.
Save the data.

EVIDENCE 5

Place in your Evidence Document a screenshot showing the primary key, field names and data types used in the table.

[2]

- 21** Import the file **J2120CATEGORIES.csv** as a new table in your database.
Set *Cat_Code* as a primary key.
Create a one-to-many relationship between *Cat_Code* in the categories table and *Cat_Code* in the race table.

EVIDENCE 6

Place in your Evidence Document screenshot(s) showing the type of relationship between the two tables.

[1]

22 Enter the following details as a new record in the race table:

<i>Entry_ID</i>	XC0657
<i>Last_Name</i>	Britton
<i>First_Name</i>	Jamie
<i>Club</i>	Bike Runners
<i>Cat_Code</i>	SV19PM
<i>Birth_Date</i>	25/09/1958
<i>Age_Jan</i>	61
<i>Laps</i>	4
<i>Race_Time</i>	01:15:26
<i>Event_Rank</i>	5
<i>Points</i>	90
<i>Race_No</i>	1162
<i>Licence</i>	Yes

Check your data entry for errors.
Save the data.

[2]

23 Using fields from both tables produce a tabular report that:

- selects the records where:
 - *Ability* is **Elite** or **Expert**
 - *Gender* is **Female**
 - *Licence* is **Yes**
- shows only the fields:
First_Name, *Last_Name*, *Gender*, *Club*, *Licence*, *Points* and *Ability*
in this order, with data and labels displayed in full. Do **not** group the data
- sorts the data into descending order of *Points*
- has a page orientation of portrait
- fits on a single page
- includes only the text **Top Ability Females** as a title at the top of the page
- has your name, centre number and candidate number on the report.

Save and print your report.

PRINTOUT 2

Make sure that you have entered your **name**, **centre number** and **candidate number** on your report.

[6]

24 Using fields from both tables, produce a tabular report that:

- selects the records where:
 - *Club* includes the text **Bike**
 - *Age_Jan* is **40 or more**
 - *Event_Rank* does **not** include **DNF**
- contains a new field called **Lap_Time** which is calculated at run-time and displayed as integer. This field will calculate the average time per lap. Multiply *Race_Time* by 1440 and divide by the number of *Laps*. Format this field to display as integer format
- shows only the following fields:
Last_Name, *First_Name*, *Gender*, *Age_Jan*, *Category*, *Club*, *Event_Rank*, *Licence*, *Race_Time* and *Lap_Time*
 in this order, with data and labels displayed in full. Do **not** group the data
- sorts the data into ascending order of *Gender* then descending order of *Age_Jan*
- has a page orientation of landscape
- fits on a single page wide
- includes only the text **Bike Club Veterans** as a title at the top of the page, formatted so that it displays:
 - in a black, **28** point, serif font style
 - with all text fully visible
- calculates the average age and displays this as an integer below the *Age_Jan* column
- has a label **Average Age of Veterans** to the left of this value
- includes only your name, centre number and candidate number in the footer of the report so it appears on every page with no other data displayed.

Save and print your report.

PRINTOUT 3

Make sure that you have entered your **name**, **centre number** and **candidate number** on your report.

EVIDENCE 7

Place in your Evidence Document a screenshot showing the database formula used to calculate the average age.

[15]

25 Export the report created in Step 24 in portable document format (pdf).
 Save the exported file in your work area.

EVIDENCE 8

Place in your Evidence Document a screenshot to show the exported file saved in your work area. Make sure there is evidence of the file type.

[1]

[Total: 27]

Task 4 – Mail merge

You are required to carry out a mail merge.

- 26** Create a mail merge letter using the file **J2120ENTRY.rtf** as the master document and **J2120MMDATA.csv** as your data source file.

Replace <Date> with a field to display today's date in the format dd MMMM yyyy

EVIDENCE 9

Take screenshot evidence of the date field code showing the format used. Place this screenshot in your Evidence Document.

[1]

- 27** Replace the text and chevrons in the master document with the merge fields from the data source file as follows:

Text and chevrons to replace	Replace with merge field
<TTL>	Title
<FIRST>	First_Name
<LAST>	Last_Name
<ADD1>	Street
<ADD2>	Area
<POST>	Postcode
<DISCIPLINE>	Race_Type
<LEVEL>	Ability
<CLASS>	Category
<TEAM>	Club
<TRIAL>	Practice_Run
<GO>	Race_Start
<CODE>	Type_ID

Make sure the spacing, punctuation, alignment and enhancements in the original master document are maintained.

Spell check and proofread the master document.

[3]

- 28** Replace the text *Candidate Name* with your name.
Enter your name, centre number and candidate number in the footer of the document.
Save and print your master document showing the merge field codes.

PRINTOUT 4

Make sure you have entered your **name**, **centre number** and **candidate number** on your master document.

[1]

- 29 Locate the lines starting with *Event Classification*, *Venue* and *Classification*
For each of these lines set a left aligned tab at 5 cm from the left margin.
Use this tab setting to align the data like this:

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Event Classification:	MTB XC Regional A															
Venue:	Coburg Arena, CAMBRIDGE, Sunday 6 September 2020															
Classification:	One Day Classic CX Cup Race															

Highlight these three lines. Take a screenshot showing these lines and the ruler with the tab displayed.

EVIDENCE 10

Place the screenshot in your Evidence Document.

[2]

- 30 Set an automated filter to select members where *Ability* is **Elite** or **Expert**

EVIDENCE 11

Place in your Evidence Document a screenshot to show the use of an automated selection method.

[1]

- 31 Merge and print the letters for the selected entrants only.
Save and close the files.

PRINTOUT 5

Print the result of the merge. Make sure you have entered your **name**, **centre number** and **candidate number** on your letters.

[1]

[Total: 9]

Task 5 – Printing the Evidence Document

Save and print your Evidence Document.

PRINTOUT 6

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

Task 6 – Presentation

You are going to create a short presentation.

All slides must have a consistent layout and formatting. Unless otherwise instructed, slides must be formatted to display a title and bulleted list.

32 Create a presentation of 6 slides using the file **J2120GUIDE.rtf**

On slide 1 enter your name after the text *Guide presented by:* [1]

33 Format the first slide so that:

- a title slide layout is applied with no bullets
- the title and subtitle text are centred in the middle of the slide.

[1]

34 Use a master slide to display the following features:

- the company logo **J2120LOGO.jpg** appropriately sized with aspect ratio maintained
- your name, centre number and candidate number
- automatic slide numbers.

Make sure that:

- master slide items appear in the same position on every slide
- there is no overlap on any slide.

[2]

35 Change the layout of the slide with the title *Competition Types* to a title and table.

Create a table that contains **5** columns and **9** rows.

Copy the data from the file **J2120TABLE.csv** and place this in the table.

Adjust the column widths so:

- the table fits on the slide with all data fully visible
- no text is split when wrapped within a cell.

[2]

36 Format the table so that:

- text in all rows is centre aligned vertically
- a plain table style is applied with no cell shading
- all internal and external gridlines are displayed when printed.

[2]

37 Insert a new row as the first row of the table and enter the heading:

Cross Country Race Types

Merge the cells in the first row and centre align the heading.

[2]

38 Format rows 1 and 2 of the table to be:

- bold with an **18** point font size
- filled with light grey shading (20–35%).

[2]

39 Save the presentation.

Print the presentation as handouts with **2** slides to the page, each slide filling about half the page.

PRINTOUT 7

Print this handout. Make sure your **name**, **centre number** and **candidate number** are on all slides.

[1]

[Total: 13]

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