



# Cambridge IGCSE™

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## INFORMATION AND COMMUNICATION TECHNOLOGY

0417/22

Paper 2 Document Production, Data Manipulation and Presentations

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.

You have been supplied with the following source files:

J2122CATEGORIES.csv  
J2122COMPARE.csv  
J2122DUATHLON.csv  
J2122EVIDENCE.rtf  
J2122MULTI.rtf  
J2122OUTCOMES.csv  
J2122RULES.rtf  
J2122SKI.jpg  
J2122TABLE.csv  
J2122VIOLATIONS.csv  
J2122VOUCHER.rtf

### Task 1 – Evidence Document

Open the file **J2122EVIDENCE.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 **J2122EVIDENCE** followed by your candidate number, for example, J2122EVIDENCE9999

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

### Task 2 – Document

*You are going to edit a review document. A corporate house style must be used. Two paragraph styles have already been created. An additional paragraph style must be created and applied to the document as instructed.*

1 Open the file **J2122MULTI.rtf**

Set the top, bottom, left and right margins to 2 centimetres.

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

The *MS-body* style has been created, stored and applied to the body text in the document. Do **not** make any changes to this.

#### EVIDENCE 1

Take a screenshot to show the margin settings. Place this in your Evidence Document.

[1]

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

#### EVIDENCE 2

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

[1]

- 3 Place in the header the text **Created by:** followed by a space and your name, centre number and candidate number left aligned.

Place in the footer automated page numbers right aligned.

Make sure that:

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

[3]

- 4 Create and store the following style, basing it on the default paragraph style:

Style name	Font style	Font size (points)	Alignment	Enhancement	Line spacing	Space before (points)	Space after (points)
<i>MS-subhead</i>	sans-serif	18	centre	bold, underline	single	0	9

### EVIDENCE 3

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

[2]

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

**Multisport Review**

[1]

- 6 The style name *MS-title* has already been created and stored.

Modify the *MS-title* 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>MS-title</i>	serif	18	centre	bold, italic	single	0	0

### EVIDENCE 4

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

[1]

- 7 Apply the amended *MS-title* style to the title text entered at step 5. [1]
- 8 Locate and move the paragraph:  
*Triathlon is an endurance contest ... taking up the sport.*  
 so that it appears as a new paragraph immediately after the subheading *Triathlon* [1]
- 9 Change the page layout so that the subheading *General Participation* and all following text is displayed in **two** columns of equal width with a **1** centimetre space between the columns. [2]
- 10 Apply square bullets to the text from  
*warmer winter ...*  
 to  
*... avalanche and landslides.*  
 Make sure that:
  - the bullets are aligned at the left margin
  - the list is in single line spacing with no space before or after each line
  - there is a 6 point space after the last item in the list.
 [3]
- 11 Identify the five subheadings in the document and apply the *MS-subhead* style to each one. [1]
- 12 Using the data in the file **J2122COMPARE.csv** create a vertical bar chart to compare entries by gender for only the categories that contain duathlon or triathlon. [1]
- 13 Label the chart with the title:  
**Comparison of Participation** [1]
- 14 Display the following:
  - percentage numbers only as data labels along the top of each bar
  - a legend showing *Men* and *Women*
 [2]
- 15 Format the value axis scale to display a:
  - minimum value of 0%
  - maximum value of 100%
 [1]

16 Insert the chart after the paragraph ending ... *are more unpopular with women.*

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 **J2122SKI.jpg** and place it in the paragraph beginning *The running is contested ...*

Crop the image to remove only the bottom third (i.e. most of the snow below the skiers).

Format the cropped image so that:

- it is resized to a width of **4** centimetres with no distortion
- it is aligned to the left of the column and top of the paragraph starting *The running is contested ...*
- the text wraps around the image.

[4]

18 Spell check and proofread the document.

Make sure that:

- the list and chart are **not** split over columns or pages
- there are no widows or orphans
- there are no blank pages
- styles are applied consistently
- no changes have been made to the *MS-body* style
- spacing is consistent between all items.

Save the document using the same file name and format used in step 2.

Print the document.

**PRINTOUT 1**

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

[2]

[Total: 29]

### Task 3 – Database

You are now going to prepare some reports based on the duathlon results.

#### 19 Using a suitable database package, import the file **J2122DUATHLON.csv**

Use these field names and data types:

Field name	Data type	Format
<i>First_Name</i>	Text	
<i>Last_Name</i>	Text	
<i>YOB</i>	Number	Integer
<i>Nationality</i>	Text	
<i>Race_Number</i>	Number	Integer
<i>Total_Time</i>	Date/Time	hh:mm:ss
<i>Run_1</i>	Date/Time	hh:mm:ss
<i>T_1</i>	Date/Time	hh:mm:ss
<i>Bike</i>	Date/Time	hh:mm:ss
<i>T_2</i>	Date/Time	hh:mm:ss
<i>Run_2</i>	Date/Time	hh:mm:ss
<i>Cat_Code</i>	Text	
<i>Stat_Code</i>	Text	
<i>Position</i>	Number	Integer

Set *Race\_Number* as a primary key.

Import the file **J2122CATEGORIES.csv** as a new table in your database.

Use these field names and data types:

Field name	Data type	Format
<i>Cat_Code</i>	Text	
<i>Race_Category</i>	Text	
<i>Inter_Category</i>	Text	
<i>Age_Band</i>	Text	
<i>Gender</i>	Text	

Set the *Cat\_Code* field as a primary key.

Import the file **J2122OUTCOMES.csv** as a new table in your database.

Use these field names and data types:

Field name	Data type	Format
<i>Stat_Code</i>	Text	
<i>Status</i>	Text	
<i>Ranked</i>	Boolean/Logical	To display as Yes/No

Set the *Stat\_Code* field as a primary key.

Save the data.

**EVIDENCE 5**

Place in your Evidence Document screenshots showing the primary keys, field names and data types used in all three tables.

[4]

**20** Create one-to-many relationships as links between the:

- *Cat\_Code* field in the categories table and the *Cat\_Code* field in the duathlon table
- *Stat\_Code* field in the outcomes table and the *Stat\_Code* field in the duathlon table.

**EVIDENCE 6**

Place in your Evidence Document screenshots showing the type of relationships between the three tables.

[1]

21 Enter the following details as a new record in the duathlon table:

<i>First_Name</i>	<b>Dean</b>
<i>Last_Name</i>	<b>Cheshire</b>
<i>YOB</i>	<b>1984</b>
<i>Nationality</i>	<b>GBR</b>
<i>Race_Number</i>	<b>1193</b>
<i>Total_Time</i>	<b>01:44:08</b>
<i>Run_1</i>	<b>00:29:40</b>
<i>T_1</i>	<b>00:01:20</b>
<i>Bike</i>	<b>00:52:50</b>
<i>T_2</i>	<b>00:01:58</b>
<i>Run_2</i>	<b>00:18:20</b>
<i>Cat_Code</i>	<b>AGM-35</b>
<i>Stat_Code</i>	<b>FIN</b>
<i>Position</i>	<b>53</b>

Check your data entry for errors.

Save the data.

[2]

22 Using fields from all tables produce a tabular report that:

- selects the records where:
  - *Race\_Category* is **Elite-Pro**
  - *Stat\_Code* does **not** include **FIN**
- shows only the following fields:  
*Race\_Number, First\_Name, Last\_Name, Nationality, Race\_Category, Status* and *Ranked*  
 in this order, with data and labels displayed in full. Do **not** group the data
- sorts the data into descending order of *Status*
- has a page orientation of portrait
- fits on a single page
- includes only the text **Non-Ranking Elite Athletes** as a title displayed in a larger font size 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]



23 Using fields from the duathlon and categories tables, produce a tabular report that:

- selects the records where:
  - *Nationality* is **GBR** or **IRL**
  - *Gender* is **Male**
  - *YOB* is between **1982** and **2001** inclusive
- contains a new field called **Athlete\_Age** which is calculated at run-time to deduct *YOB* from the current year (2021). Format this field to display integer format
- shows only the following fields:  
*First\_Name, Last\_Name, Nationality, Gender, YOB, Athlete\_Age, Run\_1, T\_1, Bike, T\_2, Run\_2, Total\_Time* and *Position*  
in this order, with data and labels displayed in full. Do **not** group the data
- sorts the data into ascending order of *Nationality* and descending order of *Position*
- has a page orientation of landscape
- fits on a single page wide
- includes only the text **Senior Male UK Results** as a title displayed in a larger font size at the top of the page
- calculates the number of athletes and places this at the end of the report, formatted as an integer
- has a label **Number of athletes** to the left of this value
- displays only your name, centre number and candidate number in the footer so it appears in the same position on every page. Make sure no other data is displayed in the footer.

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 number of athletes.

[14]

24 Export the report created in step 23 in portable document format (pdf).

Save the exported file in your work area with the file name **SENIOR**

**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.

[2]

[Total: 29]

### Task 4 – Mail merge

You are required to carry out a mail merge.

- 25 Create a mail merge document using the file **J2122VOUCHER.rtf** as the master document and **J2122VIOLATIONS.csv** as your data source file.

Enter your name, centre number and candidate number in the header of the document.

[1]

- 26 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
<NAME>	Full_Name
<CTRY>	Country
<RN>	Race_Number
<CB>	Club
<GEND>	Gender
<CAT>	Race_Category
<SEG>	Discipline
<WHEN>	Time_Incurred
<VIOL>	Violation
<PEN>	Penalty
<DUR>	Duration
<OFFICER>	Tech_Officer

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

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

Save and print your master document showing the merge field codes.

#### EVIDENCE 9

Take screenshot evidence of the date field code showing the dddd, dd MMMM yyyy format used. Place this screenshot in your Evidence Document.

#### PRINTOUT 4

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

[6]

27 Set an automated filter to select competitors where:

- *Discipline* is **Transition\_2**
- *Duration* is **2 or more**

**EVIDENCE 10**

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

[1]

28 Merge and print the vouchers for the selected competitors 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 vouchers.

[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.*

29 Create a presentation of 6 slides using the file **J2122RULES.rtf**

Place in the footer your name, centre number and candidate number.

The footer must be displayed on all slides.

[1]

30 On the slide with the title *Transition* demote the last 3 bulleted items so they look like this:

- competitors must not:
  - *impede the progress of other competitors*
  - *interfere with another competitor's equipment*
  - *cycle in the transition area*

[2]

- 31 Change the layout of the slide with the title *Common Penalties* to a title and table.  
Create a table that contains **4** columns and **13** rows.  
Copy the data from the file **J2122TABLE.csv** and place this in the table.

[2]

- 32 Format the table so that:

- a plain table style is applied with no cell shading
- all internal and external gridlines are displayed when printed.

[1]

- 33 Insert **2** new rows as the first 2 rows of the table.

Enter the text and format rows 1 and 2 of the table so they look like this:

Conduct	Type of Penalty		
	Stop and Go	Time	Disqualification

[5]

- 34 Adjust the column widths so:

- data in column 1 is displayed on one line
- the table fits on the slide with all data fully visible.

[1]

- 35 Save the presentation.

Print all slides in the presentation as handouts with 2 slides to the page, each slide filling 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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