



Cambridge IGCSE™

INFORMATION AND COMMUNICATION TECHNOLOGY

0417/21

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)

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.

You have been supplied with the following source files:

J2121ATHLETE.csv
J2121CERT.rtf
J2121CHEER.wav
J2121DATA.csv
J2121EVENTS.csv
J2121EVIDENCE.rtf
J2121PARTAKE.csv
J2121RESULTS.csv
J2121SWIM.png
J2121TRI.rtf
J2121TRIATHLON.rtf

Task 1 – Evidence Document

Open the file **J2121EVIDENCE.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 **J2121EVIDENCE** followed by your candidate number, for example, J2121EVIDENCE9999

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

Task 2 – Document

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

1 Open the file **J2121TRIATHLON.rtf**

The page setup is set to A4, portrait orientation with 2.5 centimetre margins. Do **not** make any changes to these settings.

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

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

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 Remove any page breaks from the document.

[1]

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

Place in the footer automated page numbers centre aligned.

Make sure that:

- the header alignment matches the page margin
- no other text or placeholders are included in the header or footer areas
- headers and footers are displayed on all pages.

[2]

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

Triathlon Event Pack

[1]

- 5 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)
TN-title	serif	34	centre	bold, italic	single	0	0

Apply the *TN-title* style to the title text entered in step 4.

EVIDENCE 2

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

[3]

- 6 Select the subheading *General* and the following text up to and including the paragraph ending ... *competitors in each category*.

Change the page layout so that only this text is displayed in **two** columns of equal width with a **1.5** centimetre space between them.

[2]

- 7 Apply bullets to the text from

swim: 60 minutes ...

to

... 1 hour 20 minutes

Make sure that:

- the bullets are indented **1.5** centimetres from 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.

[2]

- 8 The style name *TN-subhead* has already been created, stored and applied to the six subheadings.

Modify the *TN-subhead* 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>TN-subhead</i>	serif	18	centre	italic, all capitals	single	0	9

EVIDENCE 3

Place in your Evidence Document a screenshot of the amended settings for the *TN-subhead* style.

[2]

- 9 Format the paragraph that starts *This is an important part ...* so that it:
- is indented **1** centimetre from both the left and right hand margins
 - displays an external **3** to **4** point black border.

[2]

- 10 Locate the table in the document.

Delete the entire column and contents with the heading *Distance*

[1]

- 11 Format the table so that the left column looks like this:

Swim Wave Details			

[4]

- 12 Make sure that:

- the *TN-table* style is applied to all the data in columns 2, 3 and 4
- text in columns 2, 3 and 4 displays on one line
- the table borders and all data fit within the column width
- 1 point black internal and external gridlines are displayed when printed
- there is a **6** point space after the table.

[3]

- 13 Import the image **J2121SWIM.png** and place it in the paragraph beginning *Please follow the Race Director's ...*

Reflect (flip) the image so the hand is on the left.

Format the image so that:

- it is resized to a width of **2.5** centimetres with aspect ratio maintained
- it is aligned to the right of the column and top of the paragraph starting *Please follow the Race Director's ...*
- the text wraps around the image.

[4]

- 14 Spell check and proofread the document.

Make sure that:

- the list, table and indented paragraph with the border are **not** split over columns or pages
- there are no widows or orphans
- there are no blank pages
- styles are applied consistently
- 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 document.

[2]

[Total: 30]

Task 3 – Database

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

15 Using a suitable database package, import the file **J2121ATHLETE.csv**

Use these field names and data types:

Field name	Data type	Format
<i>Last_Name</i>	Text	
<i>First_Name</i>	Text	
<i>Athlete_ID</i>	Number	
<i>Nationality</i>	Text	
<i>YOB</i>	Number	
<i>Gender</i>	Text	

Set the *Athlete_ID* field as a primary key.

Import the file **J2121EVENTS.csv** as a new table in your database.

Use these field names and data types:

Field name	Data type	Format
<i>Event_ID</i>	Text	
<i>Location</i>	Text	
<i>Country</i>	Text	
<i>Date</i>	Date/Time	DMY
<i>Swim(M)</i>	Number	
<i>Bike(KM)</i>	Number	
<i>Run(KM)</i>	Number	
<i>Water_Temp</i>	Number	
<i>Air_Temp</i>	Number	
<i>Wetsuit</i>	Boolean/Logical	To display as Yes/No
<i>Race_Director</i>	Text	
<i>IOC_Code</i>	Text	

Set the *Event_ID* field as a primary key.

Import the file **J2121RESULTS.csv** as a new table in your database.

Use these field names and data types:

Field name	Data type	Format
<i>Event_ID</i>	Text	
<i>Athlete_ID</i>	Number	
<i>Start_No</i>	Number	
<i>Swim</i>	Date/Time	hh:mm:ss
<i>T1</i>	Date/Time	hh:mm:ss
<i>Bike</i>	Date/Time	hh:mm:ss
<i>T2</i>	Date/Time	hh:mm:ss
<i>Run</i>	Date/Time	hh:mm:ss
<i>Outcome</i>	Text	
<i>Position</i>	Number	
<i>Total_Time</i>	Date/Time	hh:mm:ss

Do **not** set a primary key.

Save the data.

EVIDENCE 4

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

[5]

16 Create one-to-many relationships as links between the:

- *Athlete_ID* field in the athlete table and the *Athlete_ID* field in the results table
- *Event_ID* field in the events table and the *Event_ID* field in the results table.

EVIDENCE 5

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

[2]

17 Enter the following details as a new record in the athlete table:

<i>Last_Name</i>	Lee
<i>First_Name</i>	Sophia
<i>Athlete_ID</i>	15310
<i>Nationality</i>	NZL
<i>YOB</i>	1982
<i>Gender</i>	Female

Check your data entry for errors.

Save the data.

[2]

18 In the results table, locate the record with *Athlete_ID* 15318 and *Event_ID* MX321085

Amend the details as follows:

Swim **00:19:38**
T1 **00:00:36**
Position **1**

Check your data entry for errors.

Save the data.

[1]

19 Using fields from all tables, produce a tabular report that:

- selects the records where:
 - *Location* includes the text **ham**
 - *Nationality* is **AUS** or **NZL**
 - *Outcome* is **Complete**
- shows only the fields:
First_Name, *Last_Name*, *YOB*, *Nationality*, *Location*, *Outcome* 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 ascending order of *Position*
- has a page orientation of portrait
- fits on a single page
- includes only the text **Oceania Results** 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.

[7]

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

- selects the records where:
 - *Position* is **more than 0** and **5 or less**
 - *Gender* is **Female**
- contains a new field called **Total_Transition** which is calculated at run-time to add the contents of *T1* and *T2*. Format this field to display time as hh:mm:ss
- shows only the following fields:
First_Name, Last_Name, Location, Swim, T1, Bike, T2, Run, Wetsuit, Total_Transition and *Position*
in this order, with data and labels displayed in full. Do **not** group the data
- sorts the data into descending order of *Position*
- has a page orientation of landscape
- fits on a single page wide
- includes only the text **Top Female Triathletes** as a title displayed in a larger font size at the top of the page
- calculates the number of database records shown in this report and places this at the end of the report, formatted as an integer
- has a label **Number of competitors** 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 6

Place in your Evidence Document a screenshot showing the database formula used to calculate the total number of competitors.

[12]

[Total: 29]

Task 4 – Mail merge

You are required to carry out a mail merge.

- 21 Create a mail merge document using the file **J2121CERT.rtf** as the master document and **J2121DATA.csv** as your data source file.

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

[1]

- 22 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
<COMP>	Name
<COUN>	Country
<TIME>	Total_Time
<POS>	Overall_Pos
<GEN>	Male_Female
<G_POS>	Gender_Pos
<SW>	Swim
<TRANS1>	T1
<BK>	Bike
<TRANS2>	T2
<RN>	Run

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 7

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.

[5]

23 Set an automated filter to select competitors where:

- *Male_Female* is **Female**
- *Gender_Pos* is **3 or less**

EVIDENCE 8

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

[1]

24 Merge and print the certificates 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 certificates.

[1]

[Total: 8]

Task 5 – 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.

25 Create a presentation of 8 slides using the file **J2121TRI.rtf**

On slide 1 enter your name after the text *Overview presented by:*

[1]

26 Use a master slide to display the following features:

- automatic slide numbers on the top right
- your name, centre number and candidate number.

Make sure that:

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

[1]

27 Delete the slides with the titles *History of Triathlons* and *Super Sprint Triathlon*

[1]

28 Use the data in the file **J2121PARTAKE.csv** to create a pie chart to compare participation by age group for Triathlon only.

[1]

- 29 Label the chart with the title: **Triathlon registrations by age** [1]
- 30 Format the chart to display only percentages and age groups as sector labels.
Position these labels outside each chart sector.
Do **not** display a legend. [3]
- 31 Emphasise the age group with the largest percentage by pulling only this sector away from the other age groups. [1]
- 32 Place the chart to the left of the bullets on the slide with the title *Market Analysis*
Make sure that all data is fully visible with no overlap. [1]
- 33 Apply the sound file **J2121CHEER.wav** to the slide with the title *Ironman Triathlon* so the sound plays automatically as the slide appears.

EVIDENCE 9

Place in your Evidence Document screenshot(s) to show the sound is set to play automatically as the slide appears.

[2]

- 34 Save the presentation.
Print slides 1, 2, 3 and 4 only as handouts with 2 slides to the page, each slide filling half the page.

PRINTOUT 6

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

[1]

[Total: 13]

Task 6 – Printing the Evidence Document

- 35 Save and print your Evidence Document.

PRINTOUT 7

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

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