



# Cambridge IGCSE™

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## INFORMATION AND COMMUNICATION TECHNOLOGY

0417/21

Paper 2 Document Production, Data Manipulation and Presentations

February/March 2020

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. Blank pages are indicated.



You have been supplied with the following source files:

**M2120AC.jpg**  
**M2120CHART.csv**  
**M2120CUSTOMERS.csv**  
**M2120ENGINEERS.csv**  
**M2120EVIDENCE.rtf**  
**M2120MAIL.rtf**  
**M2120PRES.rtf**  
**M2120QUALS.csv**  
**M2120SERVICING.rtf**

You are going to carry out some tasks for a gas appliance servicing company.

### Task 1 – Evidence Document

Open the file **M2120EVIDENCE.rtf**

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

Save this document in your work area with the file name **M2120EVIDENCE** followed by your candidate number, for example, M2120EVIDENCE9999

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

### Task 2 – Document

You are going to edit a document where paragraph styles have been applied. Some of these styles will need to be edited. The page layout is A4, portrait orientation with 2.54 centimetre margins. Do **not** change these settings.

**1** Using a suitable software package, open the file **M2120SERVICING.rtf**

Save the document in your work area with the file name **SAFETY**

Make sure it is saved in the format of the software you are using.

[1]

#### 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.

**2** Place in the header of the document:

- your name, centre number and candidate number left aligned
- an automated field to display today's date right aligned.

Place in the footer:

- automated page numbers left aligned
- the file name with its full path right aligned.

Make sure that:

- all items align to the page margins
- no other text or placeholders appear in the header and footer areas
- headers and footers are displayed on all pages.

[4]

The house style specifications for paragraphs are:

	Font style	Font size (points)	Alignment	Enhancement	Line spacing	Space before (points)	Space after (points)
GS-Title	sans serif	20	centre	all capitals	single	0	0
GS-Subtitle	sans serif	18	right	italic	single	0	0
GS-Subhead	serif	16	centre	bold, underlined	single	0	16
GS-Sectionhead	serif	14	left	all caps, underlined	single	0	8
GS-Body	serif	14	justified	none	single	0	14
GS-Table	serif	14	left	none	single	0	0
GS-List	serif	12	left	a tick (✓) bullet indented 1 cm from the left margin	single	0	0

These styles have been correctly applied to the document but three do **not** match the house style specification. In step 3 you will correct these and provide evidence.

3 Identify and correct these three styles. [5]

**EVIDENCE 2**

Place in your Evidence Document screenshot(s) to show the definition of each style you have corrected.

4 Change the page layout so that all the text following the subtitle *Report for home customers* is displayed in **two** columns of equal width with a **1** centimetre space between the columns. [2]

5 Import the image **M2120AC.jpg**

Place this at the start of the paragraph below the section heading:

*REGULAR TASKS YOU CAN DO YOURSELF* [1]

6 Resize the image so that:

- it is half the width of the column
- the aspect ratio is maintained
- text wraps around the image.

Align the image to the left margin and top of the text.

[3]

7 Locate the table and format it to look like this:

	Service level				
Annual boiler service Boiler and controls	One				
Central heating		Two			
Home electrics			Three		
Plumbing				Four	
Drains					Five

Make sure that:

- the table fits within the column width
- no words split on text wrap
- gridlines are visible when printed.

[5]

8 Produce a vertical bar chart using the file **M2120CHART.csv** to compare the number of Gas, Electric and Aircon engineers for the *North* and *East* regions only.

Format the chart to include:

- the title **Regional Coverage**
- the value axis title **Number of Engineers**
- category axis labels to identify *Gas*, *Electric* and *Aircon*
- the category axis title **Areas of Expertise**
- the value data labels above each bar
- a legend to identify the regions.

Place this chart after the paragraph that ends ... *how we cover the regions*:

Make sure that the chart fits within the column width and all data and labels are fully visible.

[6]

9 Spell check and proofread the document.

Make sure that:

- paper size, page orientation and margins have not been changed
- there are no widows or orphans
- the table and lists are not split over two columns or pages
- spacing between all items is consistent.

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

Print the document.

[2]

### PRINTOUT 1

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

### Task 3 – Database

You are now going to prepare some reports for the company. These are based on tables containing data about customers and engineers. Engineers can be qualified to service gas, electric and/or air conditioning systems. Make sure all currency values display the same currency symbol and are set to 2 decimal places. Dates are to be imported as day month year.

- 10 Using a suitable database package, import the file **M2120CUSTOMERS.csv**  
Use these field names and data types:

Field name	Data type	Notes	Store
<i>Title</i>	Text		
<i>GivenName</i>	Text		
<i>FamilyName</i>	Text		
<i>CustomerNumber</i>	Number	A unique reference code	
<i>StreetAddress</i>	Text		
<i>City</i>	Text		
<i>PostCode</i>	Text		
<i>EmailAddress</i>	Text		
<i>TelephoneNumber</i>	Text		
<i>Date</i>	Date/time	Display as dd- <i>MMM</i> -yy e.g. 01-Jan-20 This is the date of the service visit	
<i>Session</i>	Text		
<i>Service</i>	Text	Meaning of these codes: G = Gas, E = Electric, A = Air conditioning	
<i>Price</i>	Numeric/currency	Display with a currency symbol to 2 decimal places	Store as currency to 2 decimal places
<i>EngineerRef</i>	Text		

Set a primary key using an appropriate field from the table.  
Save the data.

[4]

#### EVIDENCE 3

Take screenshot evidence to show the primary key, field names and data types used in the table and place this in your Evidence Document.

- 11 Import the file **M2120ENGINEERS.csv**  
Use these field names and data types:

Field Name	Data Type	Notes
<i>EngNo</i>	Text	This must be a unique code
<i>FirstName</i>	Text	
<i>LastName</i>	Text	
<i>Gas</i>	Boolean/logical	Display as Yes/No
<i>Electric</i>	Boolean/logical	Display as Yes/No
<i>Aircon</i>	Boolean/logical	Display as Yes/No
<i>GasRegNo</i>	Text	Gas registration number

Set a primary key using an appropriate field from the table.  
Save the data.

[2]

**EVIDENCE 4**

Take screenshot evidence to show the primary key, field names and data types used in the table and place this in your Evidence Document.

- 12 *An engineer has joined the company and a record of their personal details and skills needs to be entered into the database.*

Create a user-friendly columnar data entry form and use it to enter this data as a new record:

<i>EngNo</i>	<i>FirstName</i>	<i>LastName</i>	<i>Gas</i>	<i>Electric</i>	<i>Aircon</i>	<i>GasRegNo</i>
<b>E27</b>	<b>Ewan</b>	<b>Barrett</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b>	<b>GRN541643</b>

[4]

**EVIDENCE 5**

Take screenshot evidence of the form with the new record displayed and place this in your Evidence Document.

- 13 Create a one-to-many relationship between *EngNo* in the engineer table and *EngineerRef* in the customer table.

[1]

**EVIDENCE 6**

Take screenshot evidence of the relationship and place this in your Evidence Document.

- 14 Using fields from the customer table, produce a tabular report that:
- shows only the fields *CustomerNumber*, *Title*, *FamilyName*, *StreetAddress*, *PostCode*, *TelephoneNumber*, *Date*, *Session*, *Service*, *Price* and *EngineerRef* in this order with data and labels displayed in full. Do not group the data
  - selects only visits on the date **05-Mar-20**
  - sorts the data into ascending order of *EngineerRef* and ascending order of *Session*
  - has a page orientation of landscape
  - fits on a single page wide
  - calculates the total price charged and displays this as currency below the *Price* column
  - has a label **Daily total** to the left of this number
  - includes the report title **Daily Service Visits**
  - has your name, centre number and candidate number displayed on every page of the report.

[10]

Save and print your report.

**PRINTOUT 2**

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

**EVIDENCE 7**

Place in your Evidence Document a screenshot showing the formula used to calculate the daily total.

- 15 Using fields from both tables, produce a tabular report that:
- shows only the fields *Title*, *FamilyName*, *CustomerNumber*, *StreetAddress*, *PostCode*, *Date*, *Session*, *Service*, *FirstName*, *LastName*, *Gas* and *GasRegNo* in this order with data and labels displayed in full. Do not group the data
  - selects only the records where the
    - *PostCode* starts with **PE**
    - *Session* is **AM**
    - *Service* is **G** or **GE**
  - sorts the data in ascending order of *LastName*
  - calculates and displays at the bottom of the report the number of visits for this session
  - displays a label **Engineer visits to be made** to the left of this number
  - fits on a single landscape page
  - includes the title **Morning Gas Service Schedule** at the top of the report
  - displays your name, centre number and candidate number at the top right of the report.

[10]

Save and print this report.

**PRINTOUT 3**

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

**EVIDENCE 8**

Place in your Evidence Document a screenshot showing the formula used to calculate the number of visits for this session.

[Total: 31]

### Task 4 – Mail merge

You are going to produce letters for engineers who will attend a training course.

- 16 Use the file **M2120MAIL.rtf** as the master document for the mail merge and the file **M2120QUALS.csv** as the data source.

Replace in the master document:

- <Date> with a field to display today's date
- <Your Name> with your own name
- the text and chevrons with the merge fields from the data source file as follows:

Text and chevrons to replace	Replace with merge field
<TTL>	Title
<FN>	Name
<LN>	Last_Name
<ADD1>	Street
<ADD2>	Town
<ADD3>	Postcode
<REG>	Region
<CR>	Course_Ref
<CSE>	Course
<SD>	Start_Date
<DUR>	Duration
<TT>	Tutor
<LOC>	Location

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

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

Save the master document.

Display the field codes.

#### EVIDENCE 9

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

Spell check and proofread the master document. Print the master document.

#### PRINTOUT 4

Print your master document with the merge field codes displayed. Make sure your **name**, **centre number** and **candidate number** appear on the document.

[6]

- 17 Set an automated filter to select the records where the region is **South** or **East**

**EVIDENCE 10**

Place in your Evidence Document screenshot(s) showing your automated selection method.

[2]

- 18 Merge and print only the letters for the selected engineers.

**PRINTOUT 5**

Print the letters resulting from the merge. Make sure your **name**, **centre number** and **candidate number** appear on the documents.

[1]

[Total: 9]

**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.*

- 19 Create a presentation of 5 slides using the file **M2120PRES.rtf** [1]

- 20 Design a master slide for the presentation with a minimum of **4** features and apply this to all slides.

These may include:

- slide numbers
- lines
- colour or design theme
- animations
- transitions.

Your name, centre number and candidate number must appear on the slides.

[5]

**EVIDENCE 11**

Place in your Evidence Document screenshot(s) to show the features you have applied to the master slide.

- 21 Format the first slide so that:

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

Enter your name after the text *Presentation by*:

[1]

- 22 Move the last slide with the title *Safety in the home* to become the second slide. [1]
- 23 Add the following text as presenter/speaker notes for the slide with the title *Gas appliances*

**Carbon monoxide is a colourless and odourless gas.**

Print only this slide as presenter/speaker notes.

[2]

**PRINTOUT 6**

Print the single slide showing the presenter/speaker notes. Make sure your **name**, **centre number** and **candidate number** appear on the slide.

- 24 Print the presentation in a format showing 6 slides to the page. [1]

**PRINTOUT 7**

Print the presentation in a format that would show 6 slides to the page. Make sure your **name**, **centre number** and **candidate number** appear on the presentation.

[Total: 11]

**Task 6 – Printing the Evidence Document**

You now need to print your Evidence Document.

**PRINTOUT 8**

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

Save and close your Evidence Document.



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