



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Leaving Certificate Examination 2020

Geography

Part One and Answerbook

Higher Level

Two hours and 50 minutes

400 marks

Examination Number

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Day and Month of Birth

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For example, 3rd February
is entered as 0302

Centre Stamp

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Instructions

Write your Examination Number and your Day and Month of Birth in the boxes on the front cover.

Write your answers to all parts of the examination into this answerbook. This answerbook will be scanned and your work will be presented to an examiner on screen. Anything that you write outside of the answer areas may not be seen by the examiner.

Write your answers in blue or black pen. You may use pencil for sketches, graphs and diagrams only.

There are two parts to this examination. Questions for **PART TWO** are supplied separately but your answers must be written in this answerbook.

PART ONE	Short-Answer Questions	80 marks
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Attempt any **TEN** questions.

All questions carry equal marks.

PART TWO	Structured and Essay Questions	320 marks
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You must attempt **FOUR** questions, as follows:

TWO questions from Section 1 – Core

- **One** question from Questions 1, 2 and 3 (**80 marks**)

And

- **One** question from Questions 4, 5 and 6 (**80 marks**)

ONE question from Section 2 – Electives (**80 marks**)

ONE question from Section 3 – Options (**80 marks**)

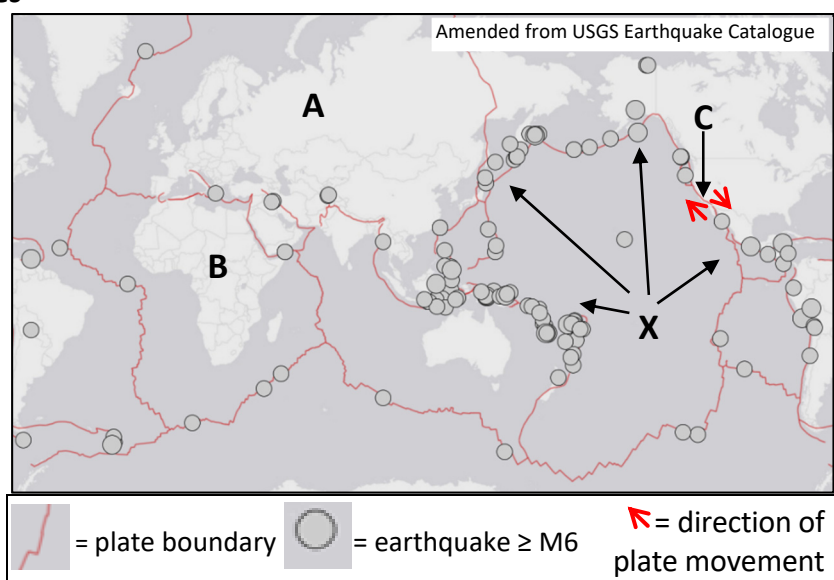
PART ONE – SHORT-ANSWER QUESTIONS – 80 MARKS

Attempt any **TEN** questions.

All questions carry equal marks.

THESE QUESTIONS ARE TO BE ANSWERED IN THE SPACES PROVIDED

1. Earthquakes



Examine the map above showing the locations of all earthquakes with a magnitude greater than or equal to 6 ($\geq M6$) that occurred in 2018. Answer each of the following questions.

- (i) What is the name of the area labelled **X** where the majority of earthquakes occurred in 2018?

- (ii) Name the tectonic plates labelled **A** and **B** in the map above.

Plate **A**:

Plate **B**:

- (iii) What type of plate boundary is located at **C** in the map above?

- (iv) Name the instrument used to measure the force of an earthquake.

[8m]

2. Sedimentary Rocks

- (i) The list below contains a number of source materials from which rocks are formed and a number of metamorphic rocks.

Slate	Clay and silt	Marble
Shells and fishbones	Sand	Quartzite

Complete the table below by inserting the correct terms from the list, to match each of the rocks named in the table with:

- (a) the source material most associated with it and
(b) the metamorphic rock most associated with it.

(a) Source Material	Rock Name	(b) Metamorphic Rock
	Limestone	
	Shale	
	Sandstone	

- (ii) State whether the following statement is true or false.

Silica is an example of an agent that binds individual particles of sedimentary rock together.

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[8m]

3. Physical Features and Processes



Amended from www.geograph.org.uk and www.geograph.ie

Examine the photographs above and answer each of the following questions.

- (i) Match each of the photographs **A**, **B**, **C** and **D** with the feature that best matches it in the table below.
- (ii) Match each of the following processes with the feature that best matches it in the table below:
 - Soil creep
 - Fluvial deposition
 - Freeze thaw weathering
 - Coastal deposition.

Q.3(i)	Feature	Q.3(ii)
Letter		Process
	Point bar	
	Terracettes	
	Scree	
	Sand dunes	

[8m]

4. Glaciation



Amended from www.nps.gov and www.bbc.co.uk

Examine the photographs above and answer each of the following questions.

- (i) Match each of the photographs **A**, **B**, **C** and **D** with the feature that best matches it in the table below.
- (ii) Indicate, by ticking the correct box, whether each of the features in the table below, is most associated with fluvio-glacial processes, glacial erosion or glacial deposition.

Q.4(i)	Feature	Q.4(ii)		
Letter		Fluvio-glacial Processes (✓)	Glacial Erosion (✓)	Glacial Deposition (✓)
	Erratic			
	Cirque/Corrie			
	Drumlin			
	Outwash Plain			

[8m]

5. Concept of a Region

Answer each of the following questions in the table below.

- (i) Match each of the following types of region with the description in the table that best matches it:

Climatic

Cultural

Geomorphological

Core

- (ii) Match each of the following examples of regions with the description in the table that best matches it:

Basque Country

The Burren

Greater Dublin Area

Mediterranean

Q.5(i) Type of Region	Description of Region	Q.5(ii) Example of Region
	A region with a unique landscape based on rock type, structure or relief.	
	A region with unique temperature and precipitation characteristics.	
	A well-developed socio-economic region that attracts industry and people.	
	A region where people share a specific language, religion and/or way of life.	

[8m]

6. Landscape Identification

Examine the 1:50 000 Ordnance Survey map and legend accompanying this paper and answer each of the following questions.

- (i) In the table below, match each of the following features with the grid reference that best matches its location on the Ordnance Survey map:

- Beach
- River braiding
- V-shaped valley.

Grid Reference	Feature
T 24 82	
T 19 77	
T 27 76	

- (ii) What is the height of the land, in metres, at the spot height located at T 239 804?

[8m]

7. Ordnance Survey Map

Examine the 1:50 000 Ordnance Survey map and legend accompanying this paper and answer each of the following questions.

- (i) Name the public service located at T 256 742.

- (ii) Give a six-figure grid reference for the railway station in Arklow.

- (iii) Measure the length, in kilometres, of the M11 motorway from Junction 20 at T 250 760 to where it exits the map at T 229 710.

- (iv) Calculate the area, in square kilometres, of the land west of easting 22.

[8m]

8. Aerial Photograph

Examine the aerial photograph of Arklow accompanying this paper and the Google Street View images below from the same area of Arklow.



Using accepted notation, give the location on the aerial photograph of each of the areas shown in the Google Street View images **A**, **B**, **C** and **D**, in the table below.

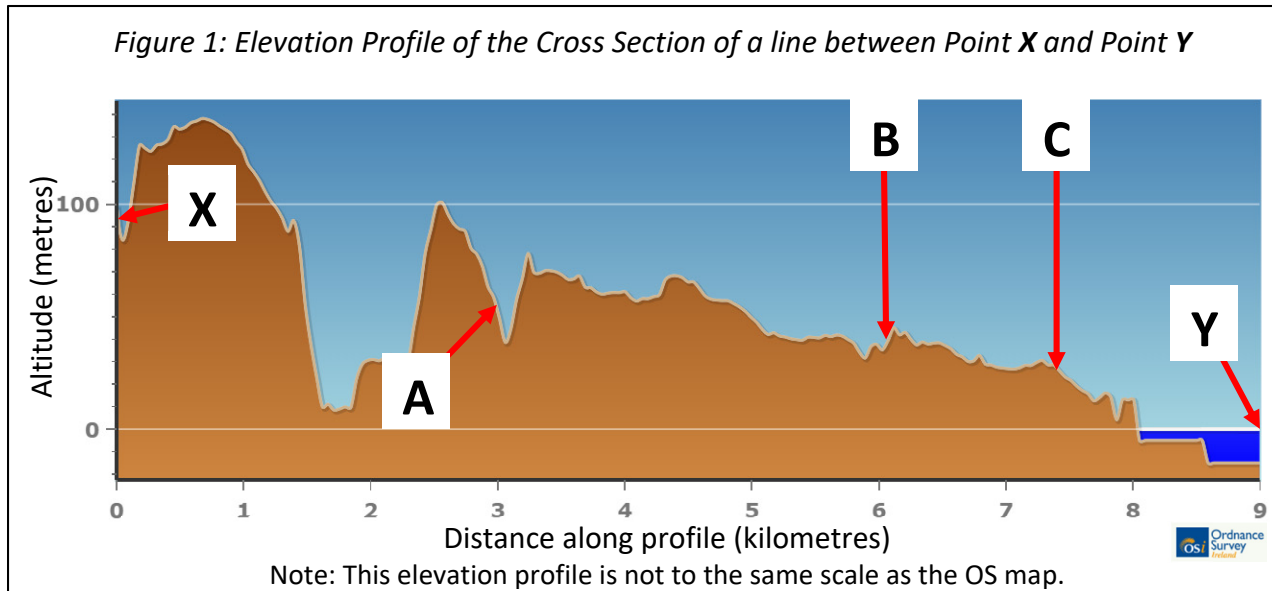
Google Street View Image	Location on the Aerial Photograph
A	
B	
C	
D	

[8m]

9. Ordnance Survey Map

Locate point **X**, T 190 760, and point **Y**, T 280 760 on the 1:50 000 Ordnance Survey map accompanying this paper. Both points are on northing 76.

Figure 1 shows an elevation profile of the cross section of a line between point **X** and point **Y** on the Ordnance Survey map.



Using the 1:50 000 Ordnance Survey map and legend and the elevation profile above, answer each of the following questions.

- (i) What type of forestry is located at **A**?

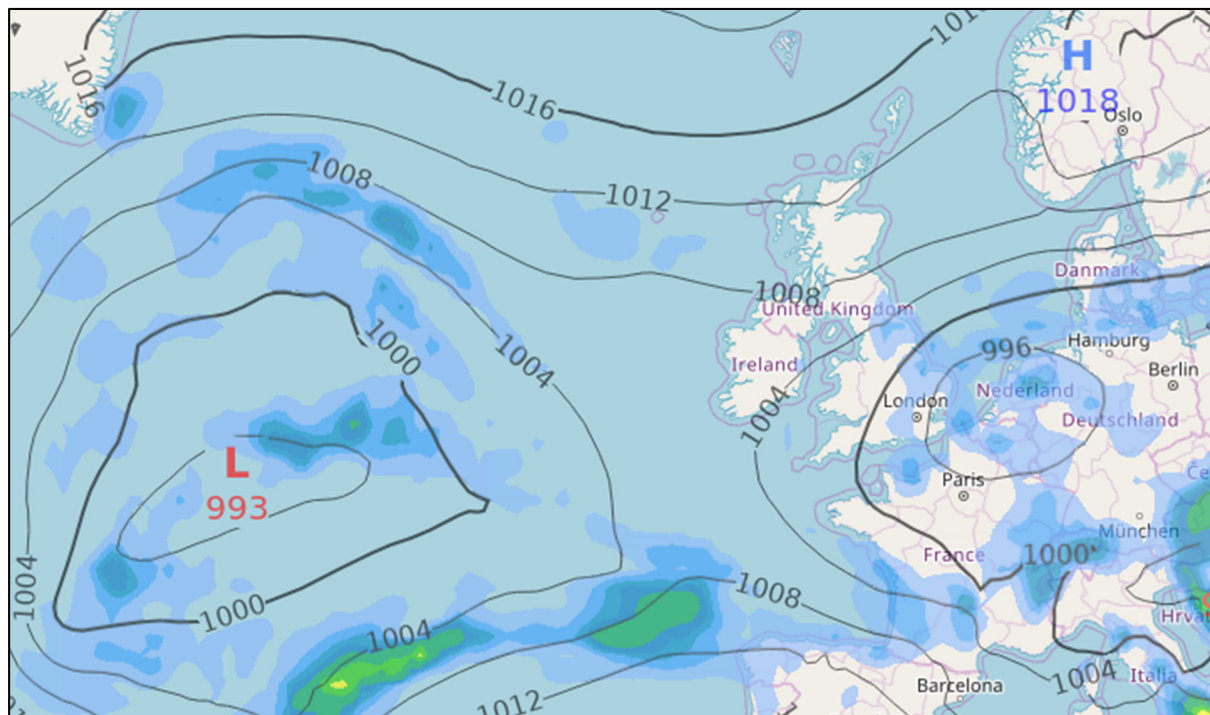
- (ii) What is the name of the road located at **B**?

- (iii) What is the altitude, in metres, of the highest point along the elevation profile?

- (iv) Give a six-figure grid reference for the point on the R750 road located at **C**.

[8m]

10. Weather



Examine the weather chart above from Met Éireann. State whether each of the following statements is true or false.

- (i) There is an anticyclone located over Scandinavia.

- (ii) The barometric pressure over Dublin is 1016 hPa.

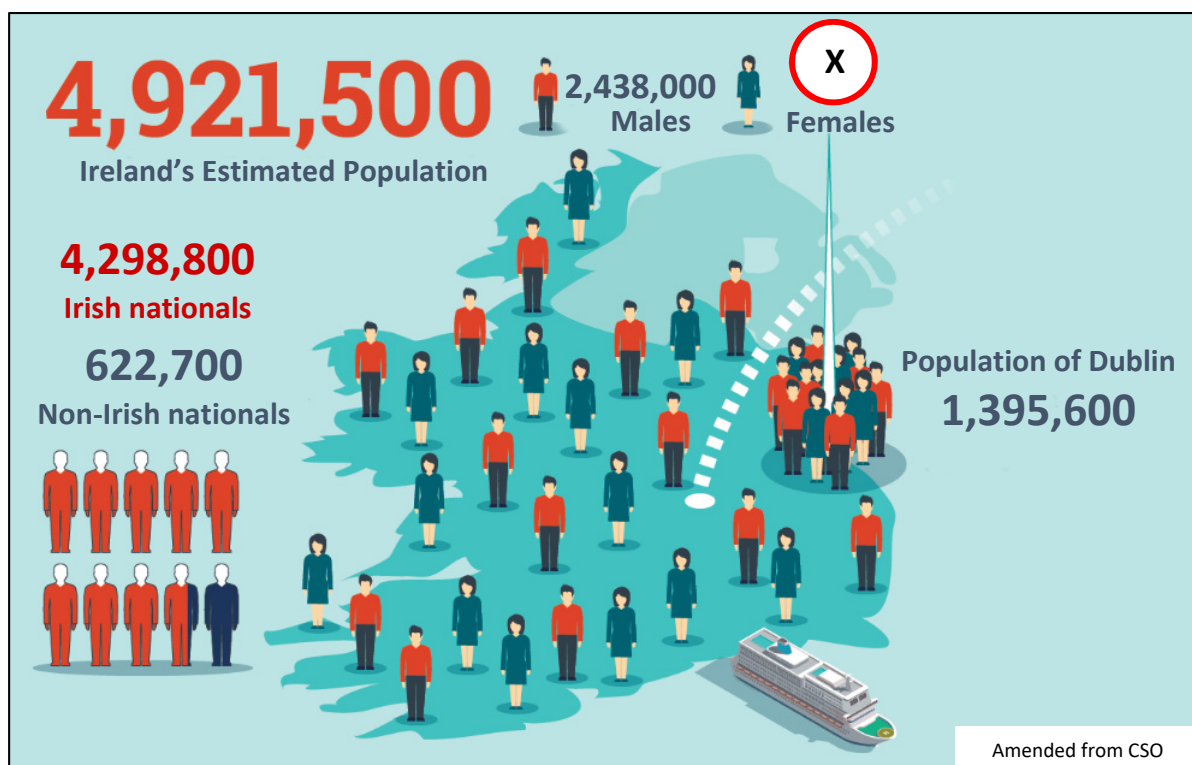
- (iii) There is little or no wind over Ireland.

- (iv) Lines on a weather map that join areas of equal atmospheric pressure are called isohyets.

[8m]

11. Population Statistics – Ireland

Population Estimates for Ireland in April 2019



Examine the infographic above which shows population estimates for Ireland in April 2019 and answer each of the following questions.

- (i) How many Irish nationals were estimated to live in Ireland in April 2019?

- (ii) Calculate **X**, the number of females estimated to live in Ireland in April 2019.

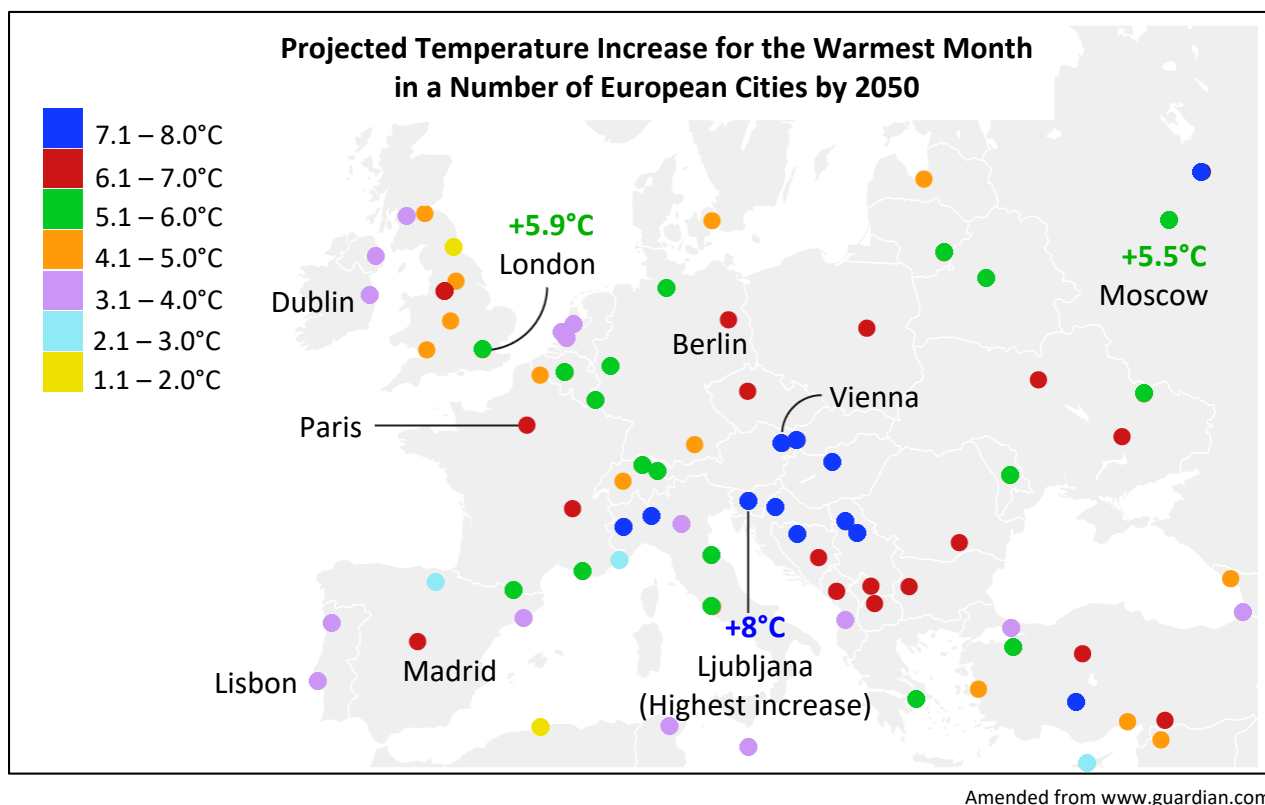
- (iii) What percentage of the total population for Ireland was estimated to live in Dublin?

- (iv) State **two** ways that population statistics can be used by the government.

1.
2.

[8m]

12. Statistical Interpretation



Examine the map above showing the projected temperature increase by 2050 for the warmest month in a number of European cities. Answer each of the following questions.

- (i) Name the city that is projected to have the highest increase in temperature for its warmest month.

- (ii) What is the projected temperature increase, in °C, for the warmest month in Paris?

- (iii) Calculate the difference in projected temperature increase, in °C, between the warmest month in Moscow and the warmest month in London.

- (iv) Many countries are investing in renewable energy to address climate change. Name **two** examples of renewable energy.

1.
2.

[8m]

Answerbook for PART TWO

Instructions

Questions for **PART TWO** are supplied separately.

Start each question on a new page. Write the question number in the box at the top of each page.

Use the left-hand column to label each part, as shown below.

Part <i>Cuid</i>	Question <i>Ceist</i>	0 4	Start each question on a new page <i>Cuir tús le gach ceist ar leathanach nua</i>
(a)			
(b)(i)			
(b)(ii)			

Four pages of graph paper are provided at the back of this answerbook. On pages with graph paper, the box for the question number is at the bottom of the page.

You do not need to use all of the pages in this answerbook. If you run out of space in this answerbook, you may ask the superintendent for more paper or graph paper.

Write your answers in blue or black pen. You may use pencil for sketches, graphs and diagrams only.

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Part

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Part

[illegible]

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Part

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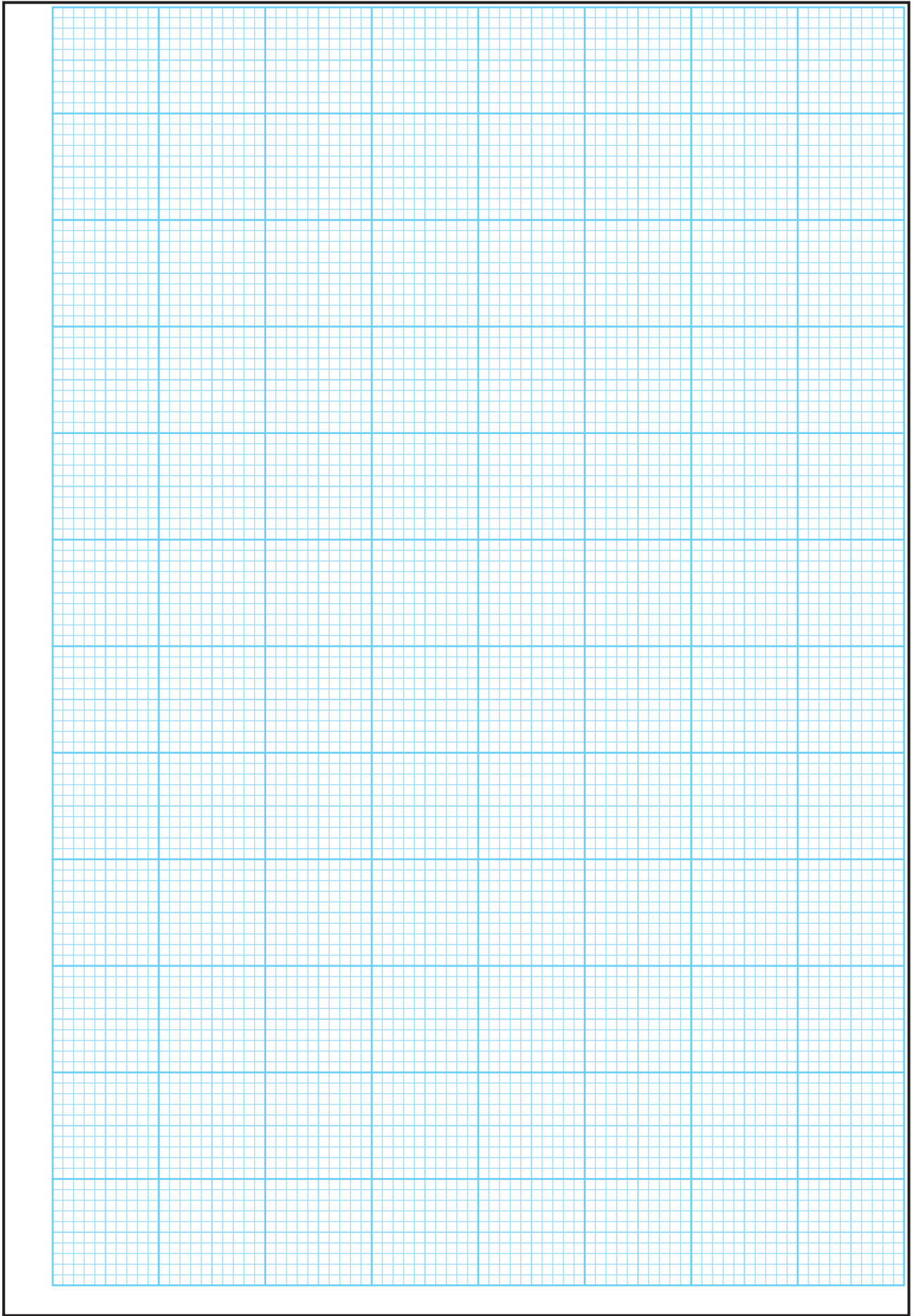
Part

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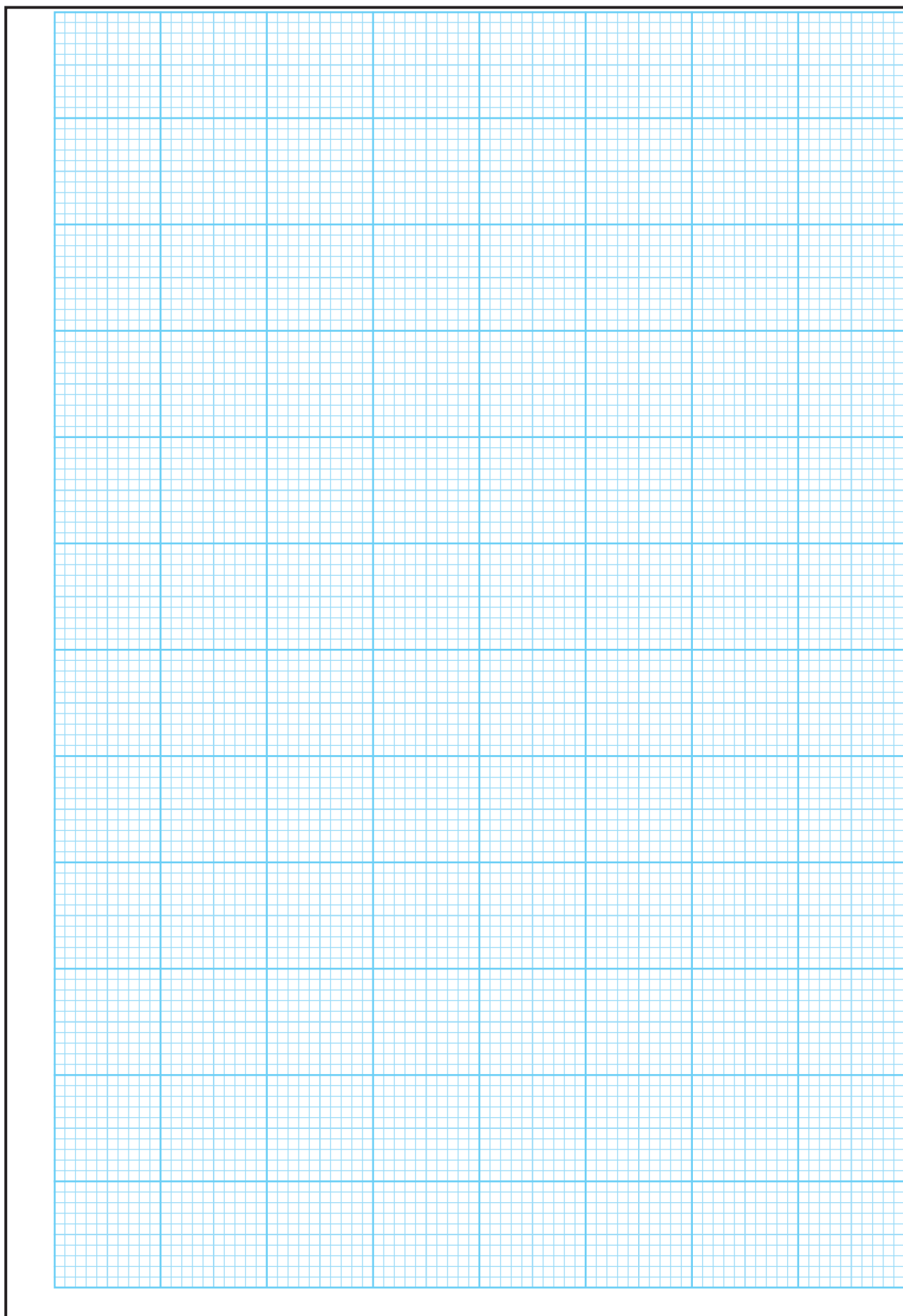
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Part

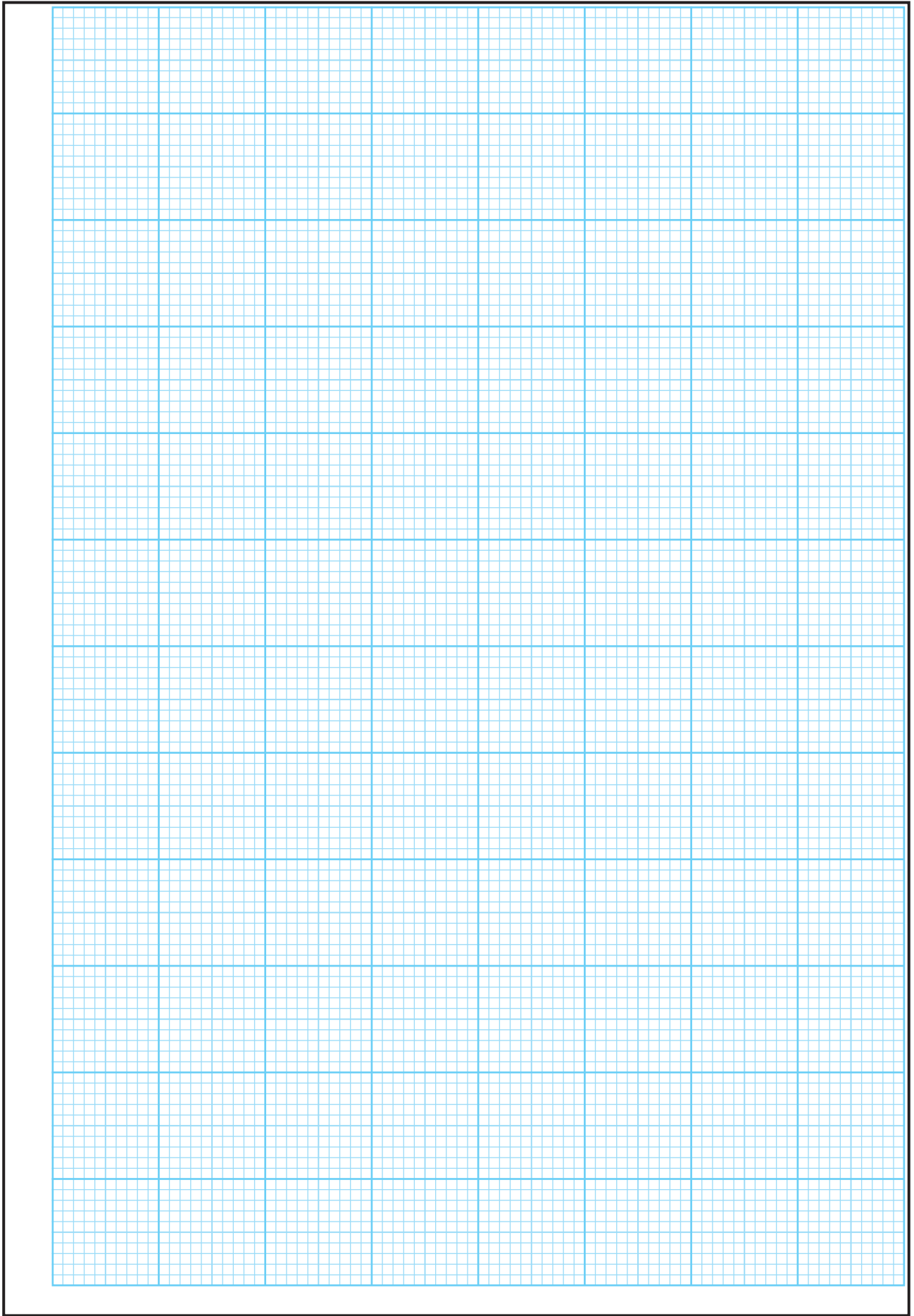
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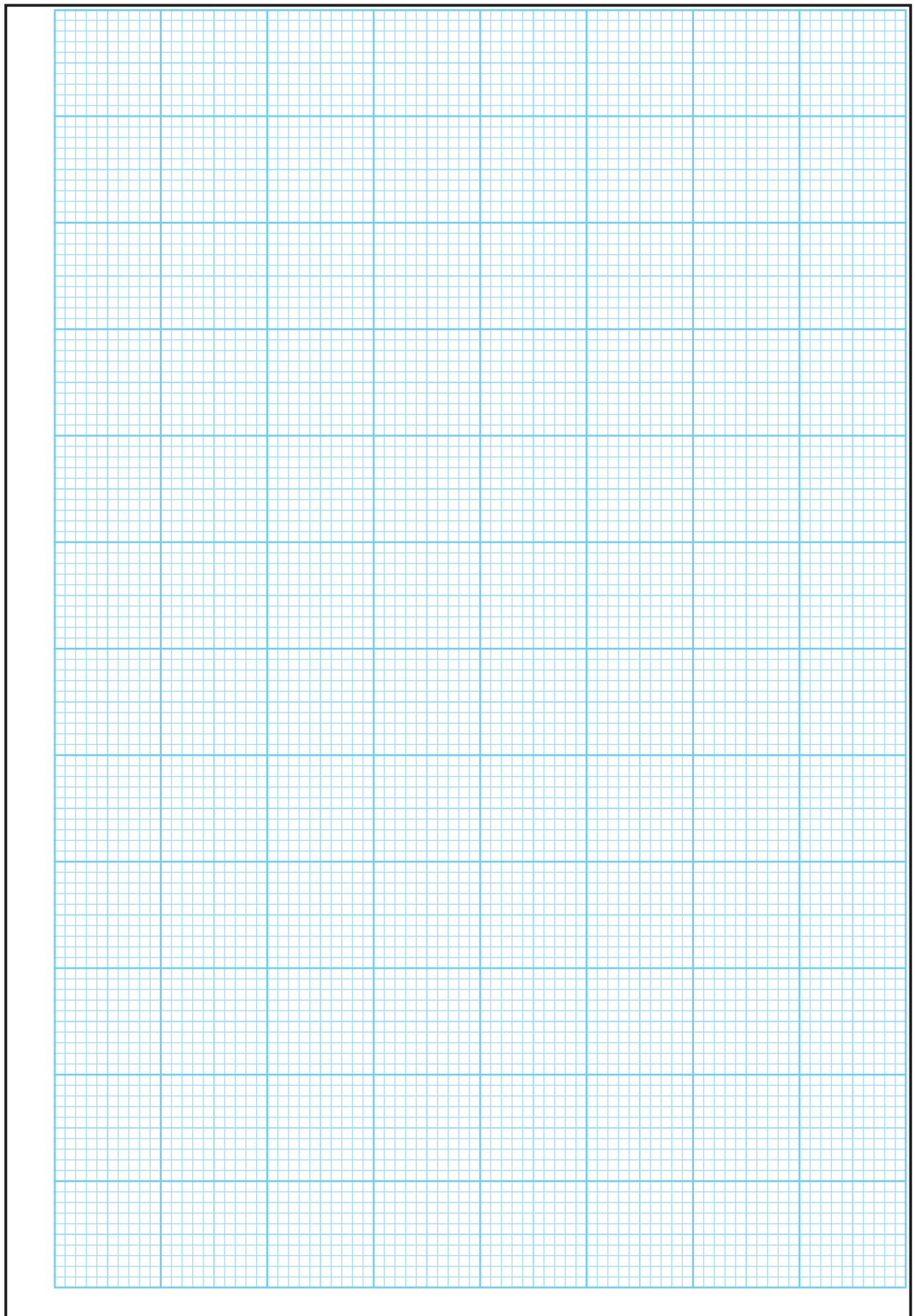
Question



Question



Question



Question

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Leaving Certificate – Higher Level

Geography Part One and Answerbook

Two hours and 50 minutes