



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Leaving Certificate Examination 2024

Geography

Part One and Answerbook

Higher Level

Friday 7 June Morning 9:30 - 12:20

400 marks

Examination Number

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Date of Birth

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For example, 3rd February
2005 is entered as 03 02 05

Centre Stamp

Instructions

Write your Examination Number and your Date 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**

Attempt any **TEN** questions.

All questions carry equal marks.

PART TWO Structured and Essay Questions **320 marks**

You must attempt **FOUR** questions. This must include one question from three of the sections below:

- Section 1: **Patterns and Processes in the Physical Environment** (Questions 1-3)
- Section 2: **Regional Geography** (Questions 4-6)
- Section 3: **Electives** (Questions 7-12)
- Section 4: **Options** (Questions 13-24)

The fourth question can be from any section.

All questions carry equal 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. Landscape Identification

Examine the 1:50 000 Ordnance Survey map and legend accompanying this paper.

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

- Oxbow lake
- Tarn
- Headland
- River confluence.

Grid Reference	Feature
W 03 55	
V 99 50	
W 02 55	
W 08 50	

[8m]

2. Weathering



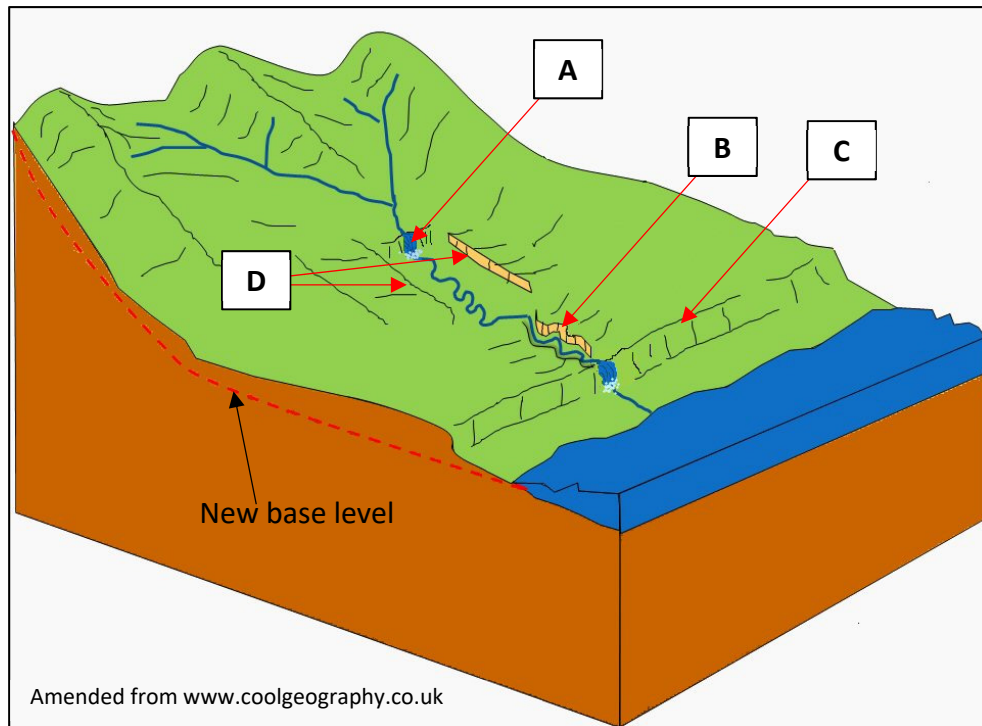
Examine the photographs above and answer each of the following questions.

- (i) Match each of the photographs **A**, **B**, **C** and **D** with the process that best matches it in the table below.
- (ii) Indicate, by ticking (✓) the correct box, whether each of the processes in the table below is most associated with chemical or physical/mechanical weathering.

Q.2 (i)	Process	Q.2 (ii)	
Letter		Chemical (✓)	Physical/Mechanical (✓)
	Carbonation		
	Freeze-thaw action		
	Exfoliation		
	Hydrolysis		

[8m]

3. Fluvial Adjustment



Examine the diagram above of a landscape where a river has a new base level and answer each of the following questions.

- (i) Match each of the items labelled **A**, **B**, **C** and **D** on the diagram with the term that best matches it by writing the correct letter for each in the table below.

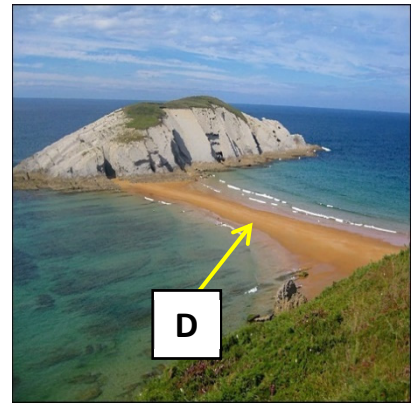
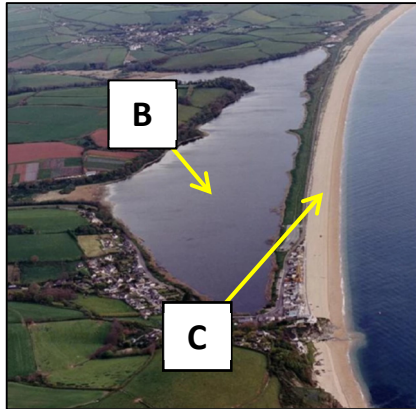
Letter	Term
	Paired terraces
	Incised meander
	Waterfall
	Knickpoint

- (ii) What is the name of the process that occurs when a river in its lower course begins to erode due to a change in base level?

- (iii) State **one** reason why a river's base level can change.

[8m]

4. Coastal Features and Processes



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

- (i) Match each of the letters **A**, **B**, **C** and **D** with the feature that best matches it in the table below.

Letter	Coastal Feature
	Sand bar
	Tombolo
	Lagoon
	Sand spit

- (ii) Indicate whether each of the following statements is true or false by ticking (✓) the correct box.

- (a) Longshore drift is a process involved in the formation of the features in part (i).

True ☐

False ☐

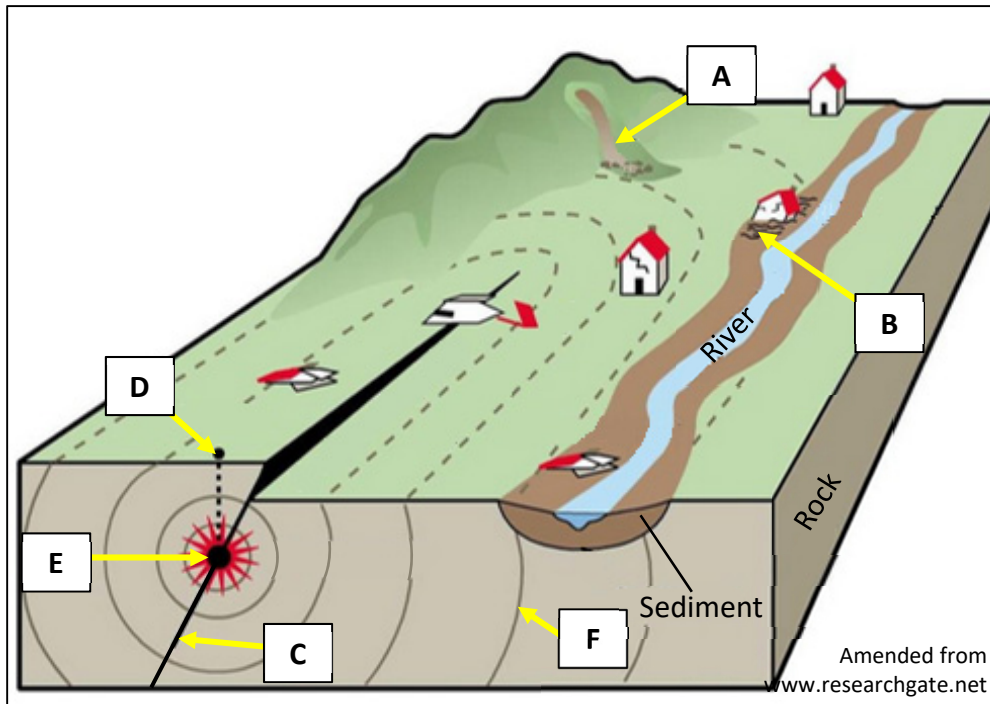
- (b) Waves are known as constructive when the swash is greater than the backwash.

True ☐

False ☐

[8m]

5. Earthquakes



Examine the diagram above of an earthquake and answer each of the following questions.

- (i) Match each of the items labelled on the diagram with the term that best matches it by writing the correct letter for each in the table below.

Term	Letter
Faultline	
Focus	
Seismic wave	
Epicentre	
Liquefaction	
Landslide	

- (ii) Indicate whether the following statement is true or false by ticking (✓) the correct box.

The Pacific Ring of Fire is an area where many earthquakes occur.

True ☐

False ☐

[8m]

6. 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:

Urban

Climatic

Administrative

Geomorphological

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

The Burren

Co. Leitrim

Berlin

Hot Desert

Q.6 (i) Type of Region	Description of Region	Q.6 (ii) Example of Region
	A region with high population density, in cities and towns.	
	A region with a unique landscape based on rock type, structure or relief.	
	A region with unique temperature and precipitation characteristics.	
	A region involved in governing the functions and organisation of an area.	

[8m]

7. Map Skills

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

- (i) Give a six-figure grid reference for the point where the R584 meets the N71.

- (ii) Measure the straight-line distance (in km) from the spot height of Mullaghmesha (W 091 514) to the triangulation pillar at Knocknaveagh (W 015 475).

- (iii) Name the antiquity shown at grid reference V 996 493.

- (iv) Calculate the area of subzone V (in km²) that is shown on the map.

[8m]

8. Aerial Photograph

Examine the aerial photograph of Bantry accompanying this paper and the street map below which shows the area covered by the aerial photograph.

Note: The orientation of the aerial photograph accompanying this paper is different to the orientation of the street map below.



Locate each of the features labelled **A**, **B**, **C**, **D** and **E** above, on the aerial photograph accompanying this paper.

Using accepted notation, give the location of each of these features on the aerial photograph, in the table below. One has been completed for you.

Feature on Street Map	Location on Aerial Photograph
A Commercial Building	Centre Foreground
B Town square	
C Pier	
D Community College	
E Housing	

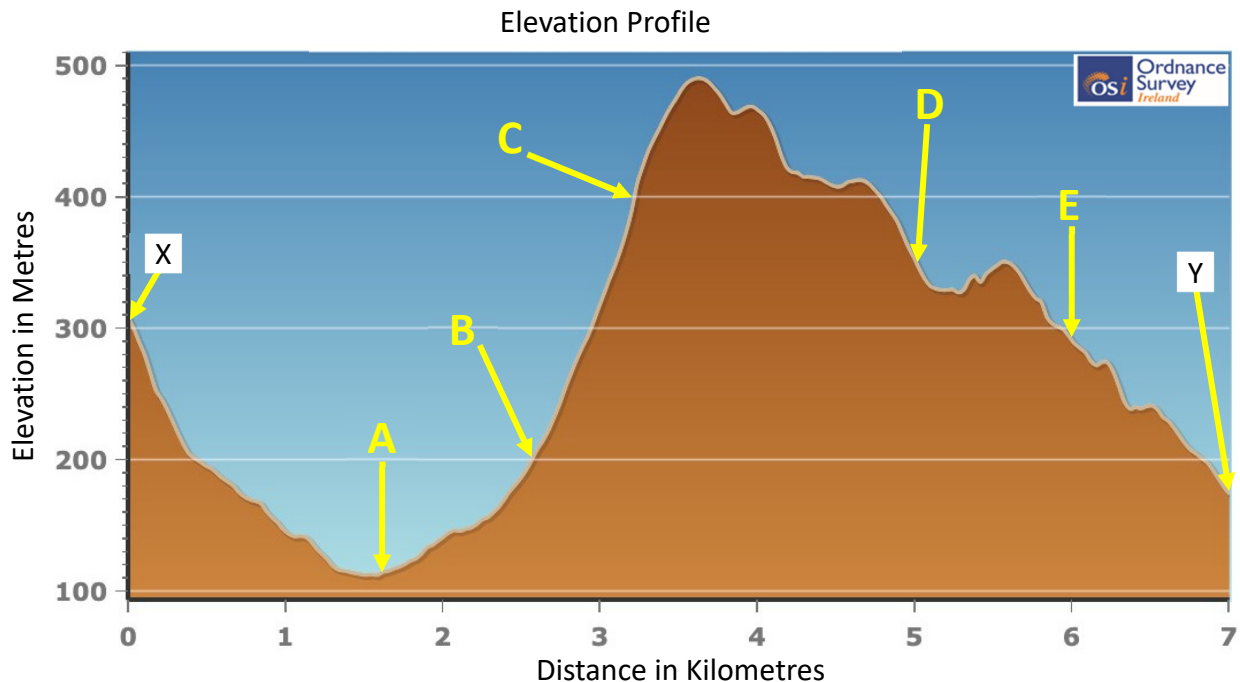
[8m]

9. Ordnance Survey Map

Locate point **X**, W 090 550, and point **Y**, W 090 480, on the 1:50 000 Ordnance Survey map accompanying this paper. Both points are on Easting 09.

Figure 1 shows an elevation profile of the cross section of a 7 km line between point **X** and point **Y** on the Ordnance Survey map.

*Figure 1: Elevation profile of the Cross Section of a line between point **X** and point **Y**.*



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

- (i) Name the river that crosses the profile at **A**.

- (ii) What type of slope is found between points **B** and **C** on the profile?

- (iii) Which of the following waymarked walks can be found at the point labelled **D**?

Beara-Breifne Way ☐

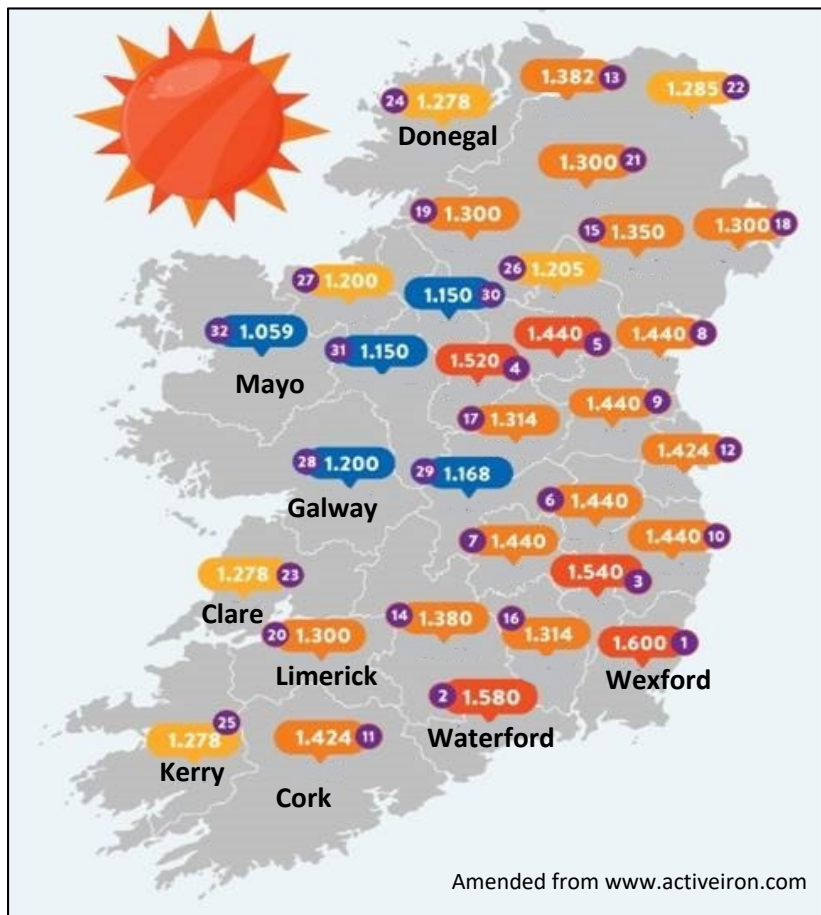
Sheep's Head Way East ☐

Glanaclogha Loop ☐

- (iv) What type of forestry is located at **E**?

[8m]

10. Sunshine in Ireland



Examine the map above showing the hours of sunshine per county (per year) in Ireland and answer the following questions.

(i) Which county has the lowest hours of sunshine?

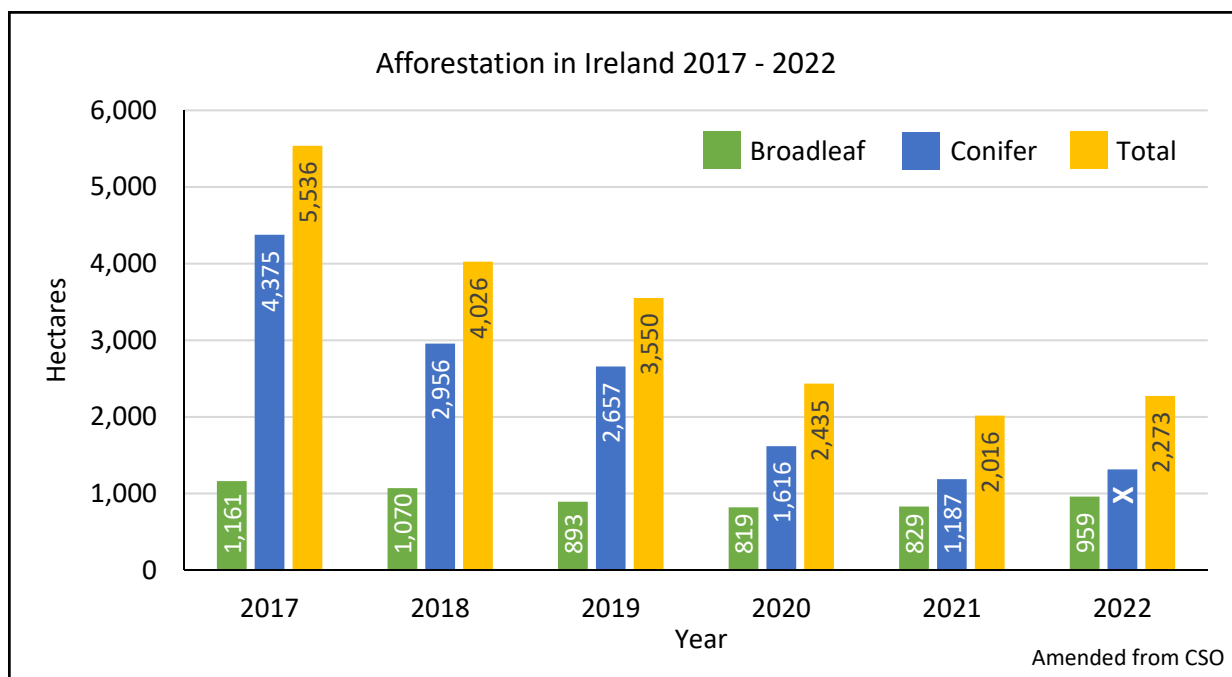
(ii) How many counties have more than 1,500 hours of sunshine?

(iii) Calculate the difference in hours of sunshine between Cork and Donegal.

(iv) What is the name given to lines on a weather map joining places of equal sunshine?

[8m]

11. Statistical Interpretation



Examine the bar chart above showing statistics on afforestation in Ireland 2017 - 2022 and answer each of the following questions.

- (i) How many hectares of broadleaf trees were afforested in Ireland in 2018?

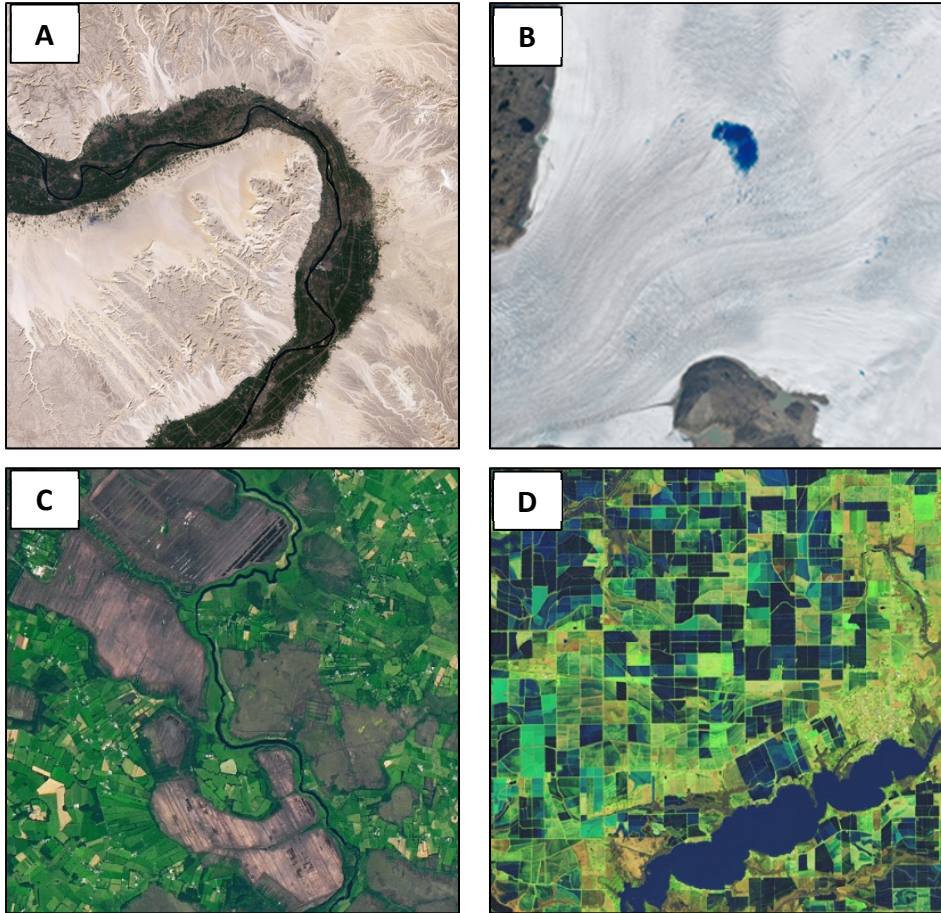
- (ii) Which year had a total afforestation of 2,435 hectares?

- (iii) Calculate **X**, the number of hectares planted with conifers in 2022.

- (iv) Explain briefly **one** environmental benefit of increased afforestation.

[8m]

12. Satellite Interpretation



Amended from www.earthobservatory.org

Examine the satellite images above and answer the question below.

Match each of the images **A**, **B**, **C** and **D** with the description that best matches it in the table below.

Description	Letter
Cutaway peatlands, Ireland	
Meltwater pond on Greenland glacier	
Farmland along the Nile Floodplain	
Flooded rice fields, Louisiana	

[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.

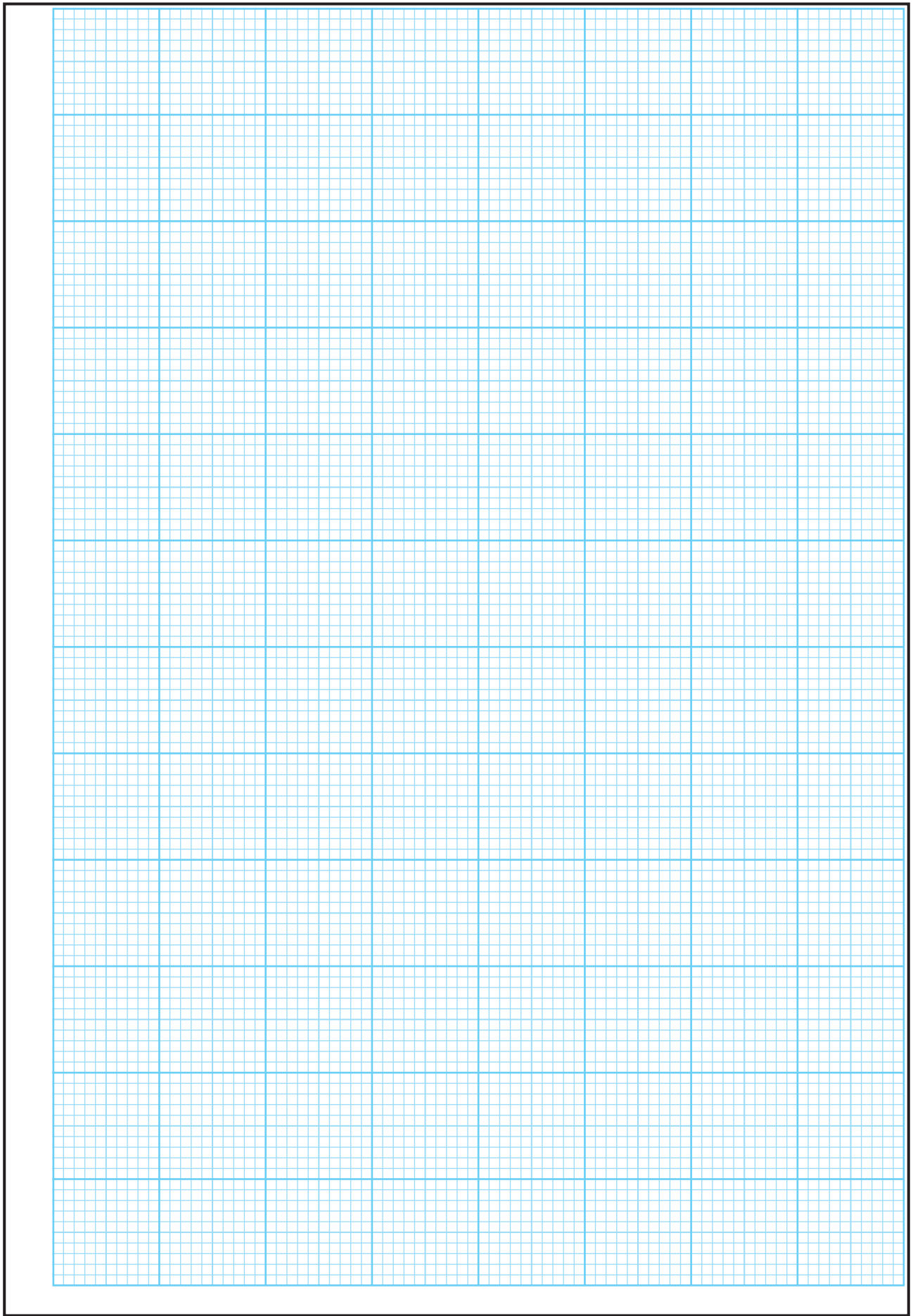
Use the left-hand column to label each part, as shown below.

Question	
Part	04
(a)	
(b)(i)	
(b)(ii)	

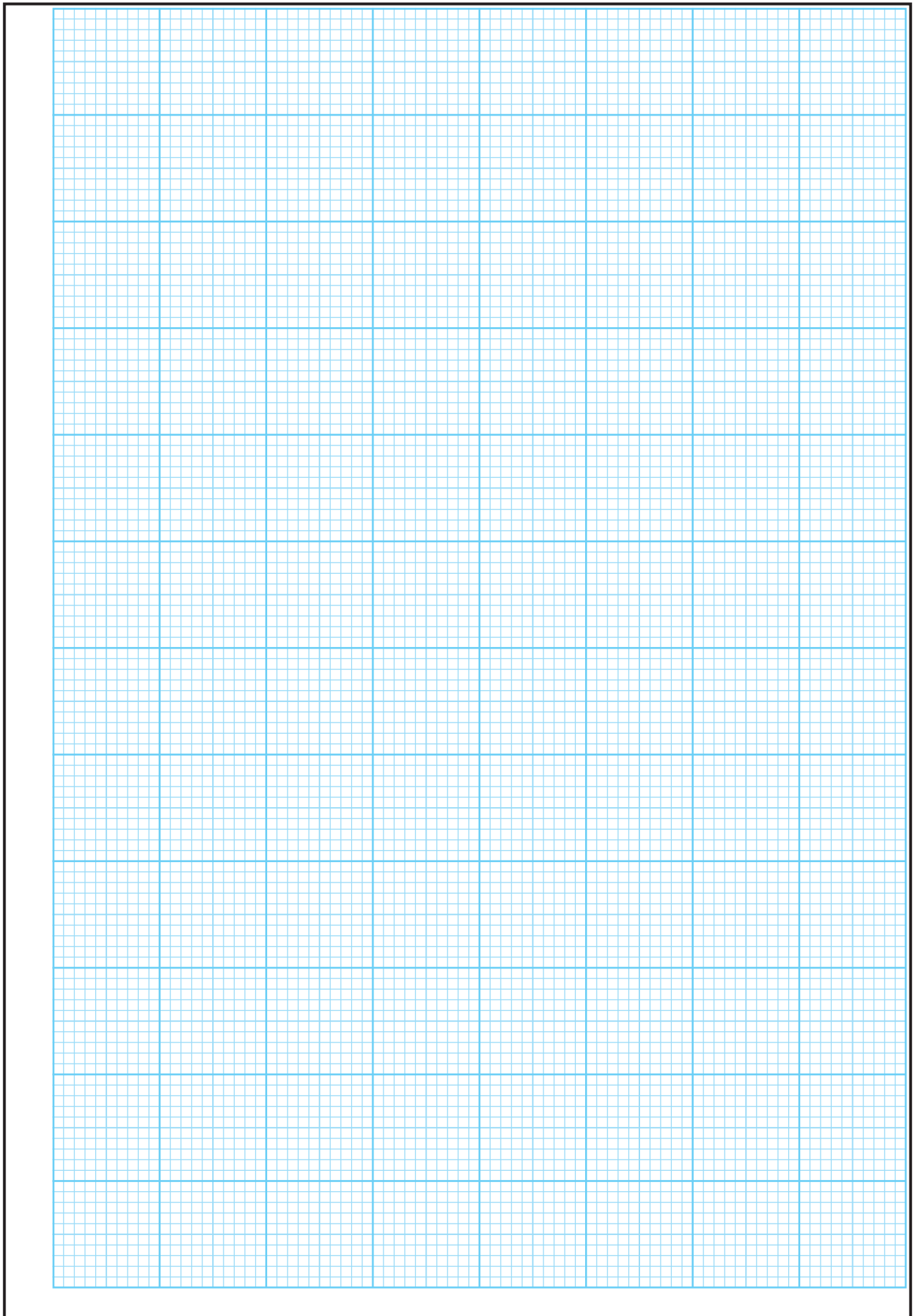
Four pages of graph paper are provided on the next four pages of this answerbook. On pages with graph paper, the box for the question number is at the bottom of the page.

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.

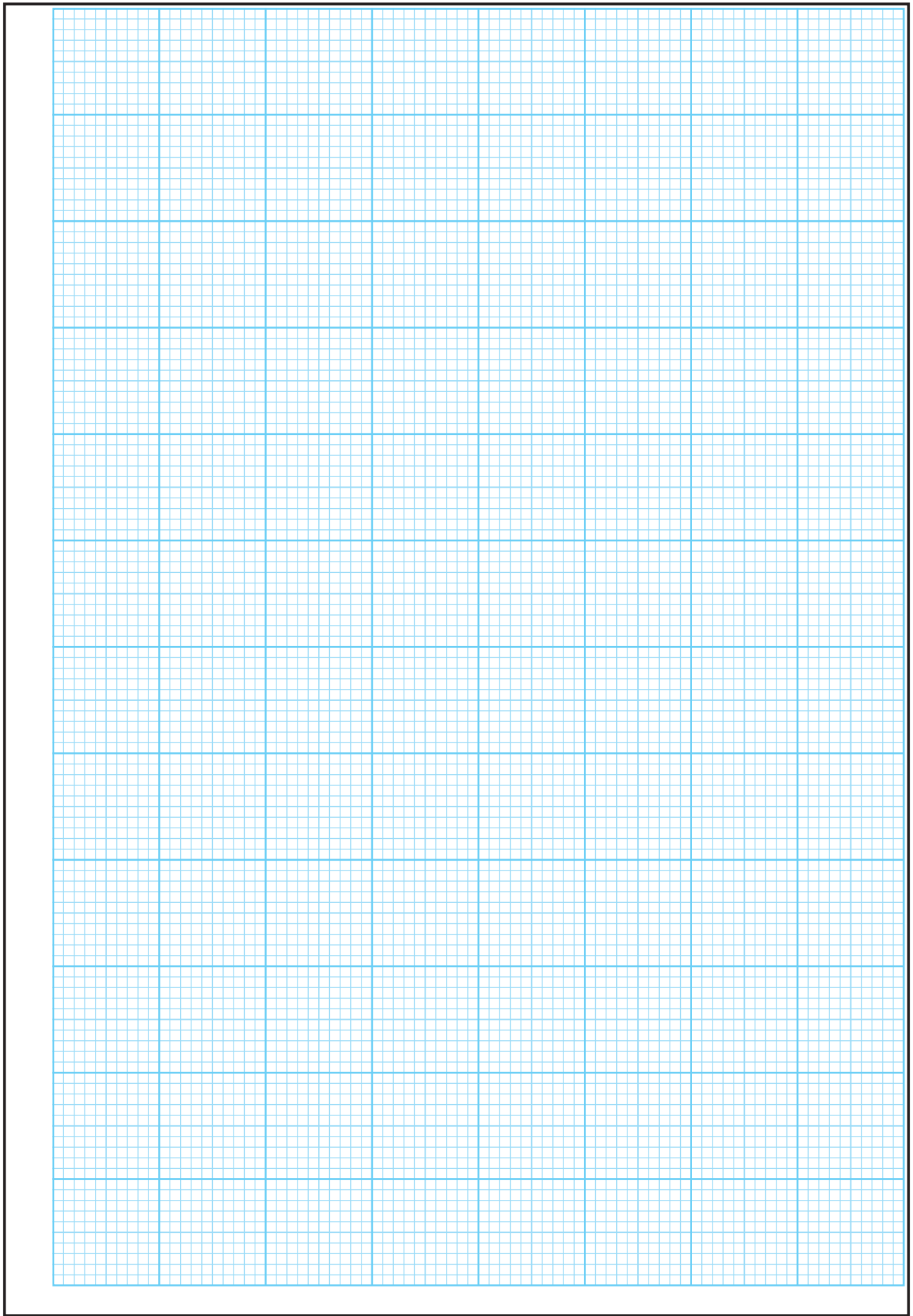


Question

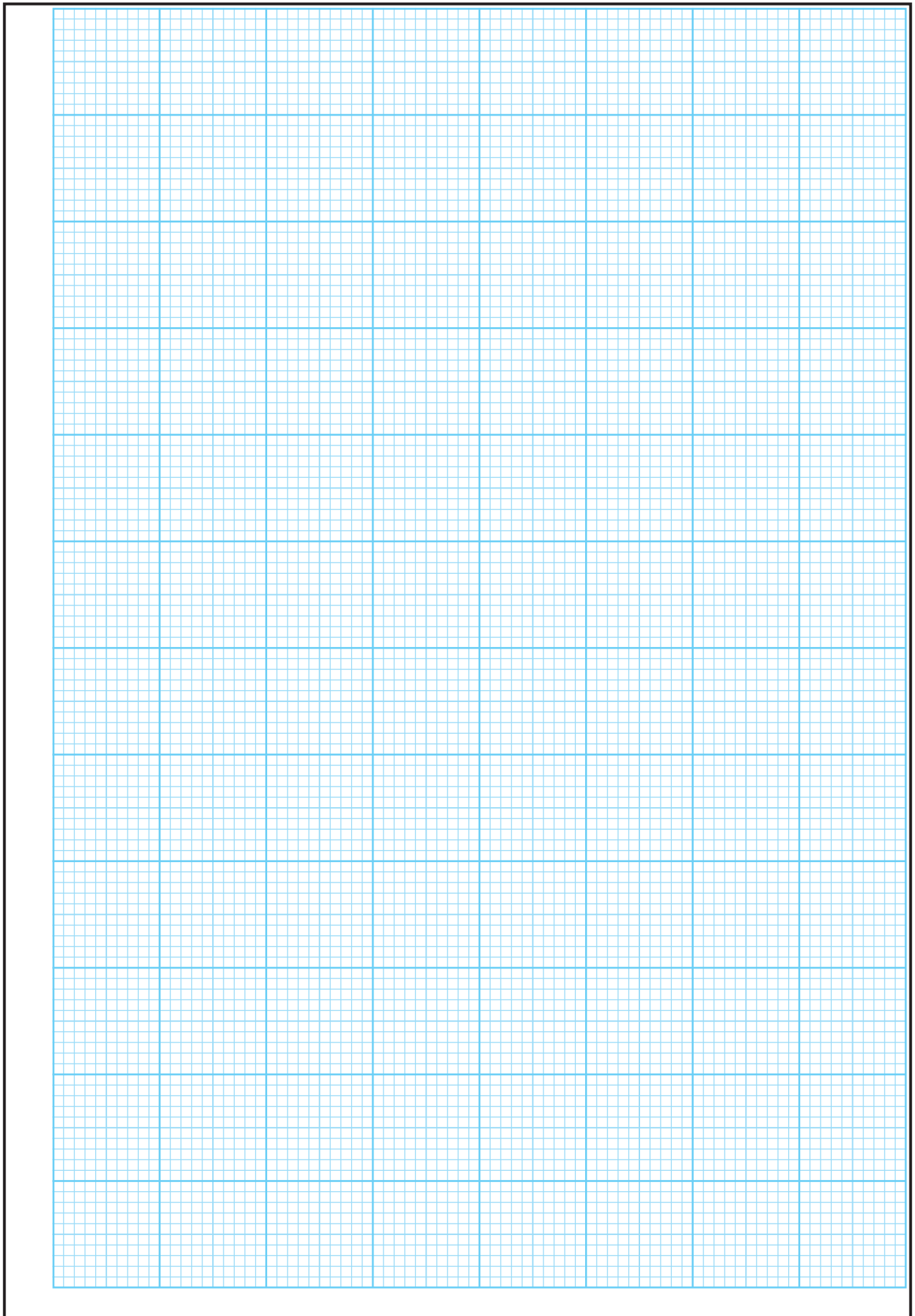


Question

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Question



Question

Part

[illegible]

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Part

[illegible]

Part

[illegible]

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Part

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Part

[illegible]

Part

[illegible]

A diagram showing a rectangle divided into two equal squares by a vertical line. The rectangle is labeled with 'a' on the top and bottom edges and 'b' on the left and right edges.

Part

[illegible]

Part

[illegible]

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Part

[illegible]

Part

[illegible]

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Leaving Certificate – Higher Level

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