



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Leaving Certificate Examination 2022

Geography

Part One and Answerbook

Higher Level

Friday 10 June Morning 9:30 - 12:20

320 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
	Attempt any TEN questions.	
	All questions carry equal marks.	

PART TWO	Structured and Essay Questions	240 marks
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You must attempt **THREE** questions. You are not allowed to choose all three questions from the same section. You may choose two questions from the same section if you wish.

- 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)

All questions carry equal marks.

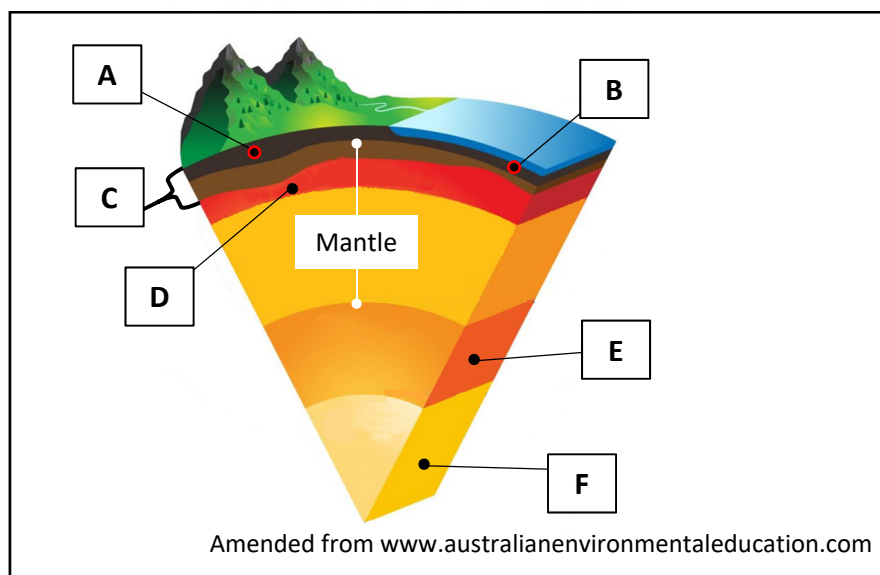
PART ONE – SHORT-ANSWER QUESTIONS – 80 MARKS

Attempt any **TEN** questions.

All questions carry equal marks.

THESE QUESTIONS ARE TO BE ANSWERED IN THE SPACES PROVIDED

1. Structure of the Earth



Examine the diagram above which shows different layers of the earth and answer each of the following questions.

- (i) Match each of the layers of the earth labelled **A** to **F** on the diagram above with the term that best matches it in the table below.

Layer of the Earth	Letter
Asthenosphere	
Inner core	
Oceanic crust	
Lithosphere	
Continental crust	
Outer core	

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

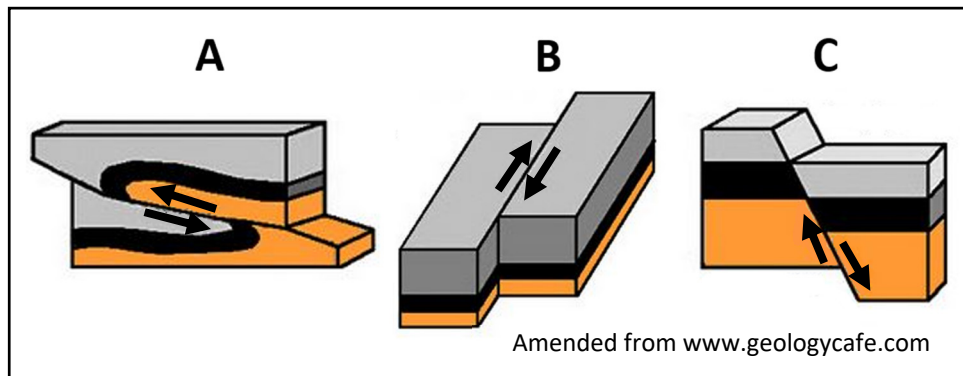
Endogenic forces are those forces that act inside the earth.

True ☐

False ☐

[8m]

2. Faulting



Examine the diagrams above which show different types of fault. Answer each of the following questions.

- (i) Match each of the diagrams **A**, **B**, and **C** with the type of fault that best matches it in the table below.
- (ii) Indicate, by ticking (✓) the correct box, whether each of the faults named in the table below is most associated with tension, compression or shearing.

Q.2 (i)	Type of Fault	Q.2 (ii)		
Letter		Tension (✓)	Compression (✓)	Shearing (✓)
	Tear/Transform fault			
	Normal fault			
	Thrust fault			

- (iii) Name **one** landform formed by faulting.

[8m]

3. Glaciation



Amended from © images by James Balog and the Extreme Ice Survey

The photographs above show the position of the Stein Glacier's snout at **A** in 2006 and at **B** in 2015. Examine the photographs and answer each of the following questions.

- (i) Did the Stein Glacier advance or retreat between 2006 and 2015?

Tick (✓) the correct box.

Advance ☐

Retreat ☐

- (ii) Which **one** of the following processes causes the snout of a glacier to advance?

Tick (✓) the correct box.

Plucking ☐

Melting ☐

Accumulation ☐

Abrasion ☐

- (iii) The snout of the Stein Glacier moved 540 metres between 2006 and 2015. Calculate the average annual rate of movement of the snout, in metres, between 2006 and 2015.

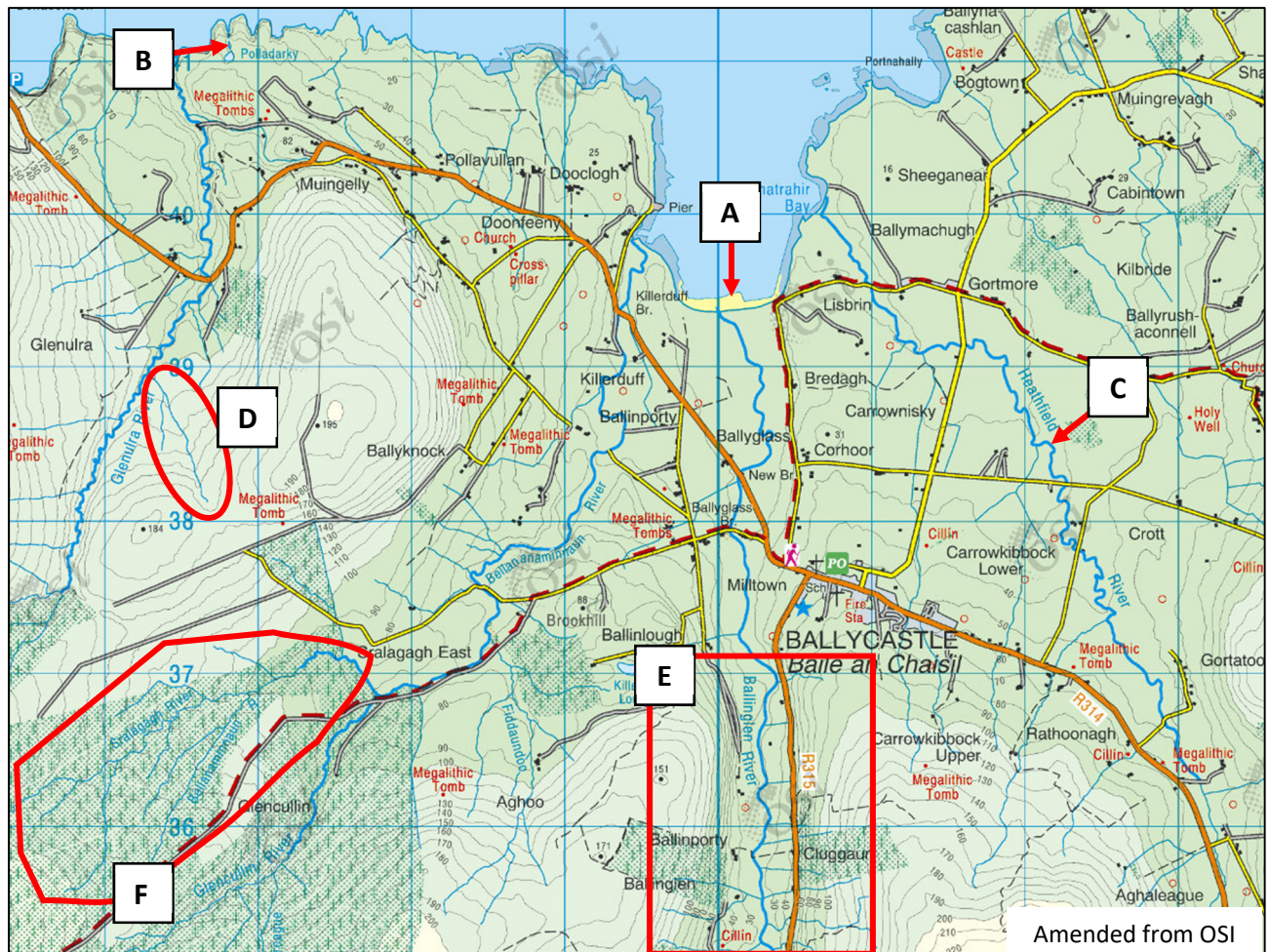
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- (iv) Name **two** landforms formed by glacial deposition.

1.
2.

[8m]

4. Physical Processes



Examine the 1:50 000 Ordnance Survey map extract above and answer each of the following questions.

- (i) Match each of the features labelled **A** to **D** on the map above with the term that best matches it in the table below.

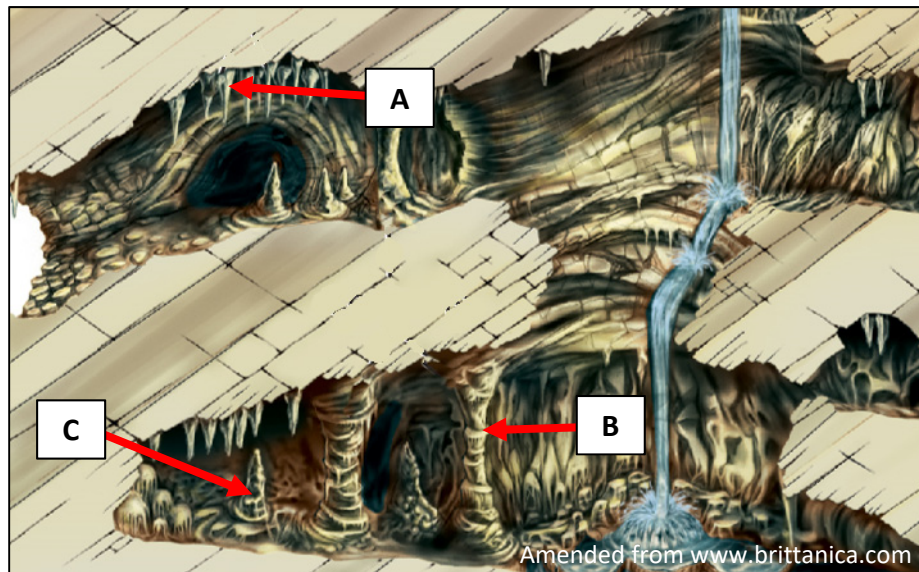
Letter	Term
	Blowhole
	Meander
	V-shaped valley
	Beach

- (ii) Name the drainage pattern that best matches the one seen in the area labelled **E** and name the drainage pattern that best matches the one seen in the area labelled **F**.

E:
F:

[8m]

5. Karst Landscapes



Examine the diagram above which shows an underground area in a karst landscape and answer each of the following questions.

- (i) Name the underground features labelled **A**, **B** and **C** on the diagram above.

Letter	Underground Feature
A	
B	
C	

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

	True	False
Percolation is the downward movement of water through rock or soil.	☐	☐
A river of resurgence is one that disappears underground.	☐	☐

[8m]

6. 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 antiquity at S 226 248.

- (ii) Give a six-figure grid reference for the Garda Station in Clonmel.

- (iii) Measure the length, in kilometres, of the R688 regional road from where it enters the map at S 183 270 to where it meets the N24 at S 198 236.

- (iv) Estimate the area, in square kilometres, of the land north of the N24.

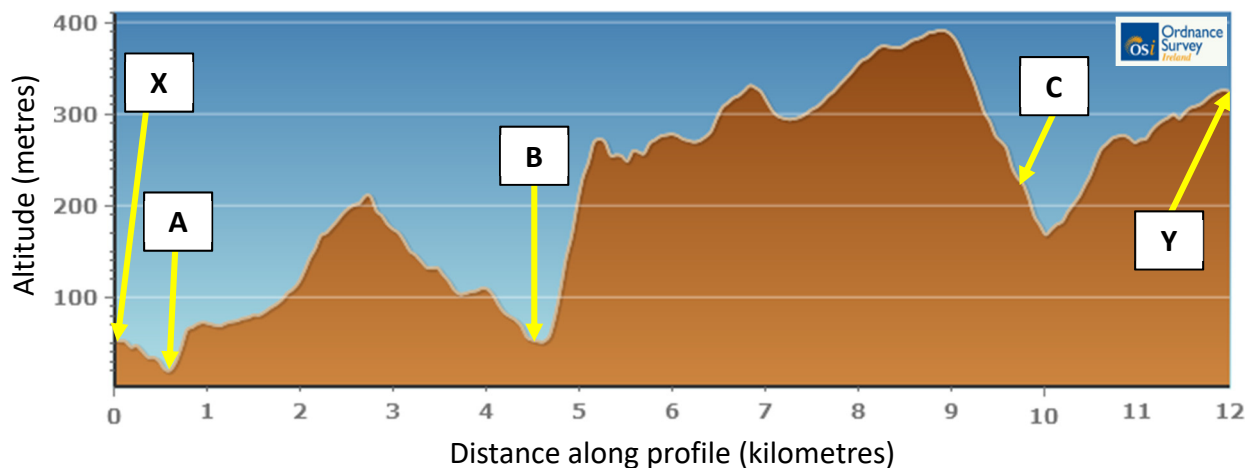
[8m]

7. Ordnance Survey Map

Locate point **X**, S 140 200, and point **Y**, S 260 200 on the 1:50 000 Ordnance Survey map accompanying this paper. Both points are on northing 20.

Figure 1 shows an elevation profile of the cross section of a 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



Note: This elevation profile is not to the same scale as the OS map.

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 is the name of the cycling trail located at **B**?

- (iii) What is the land use at **C**?

- (iv) Name **one** regional road that is found on the area of the map shown on the elevation profile.

[8m]

8. Aerial Photograph

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

Note: The orientation of the aerial photograph accompanying this paper is different from 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 on the aerial photograph of each of these features in the table below. One has been completed for you.

Feature on Street Map	Location on the Aerial Photograph
A Vacant yard	Centre foreground
B Bridge	
C Church	
D Sports pitch	
E Shopping Centre	

[8m]

9. Regions

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

Peripheral

Administrative

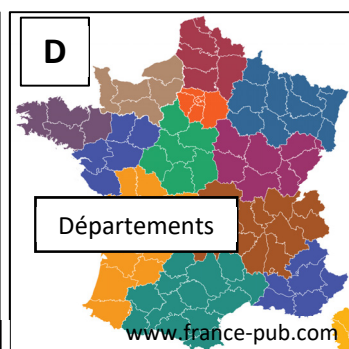
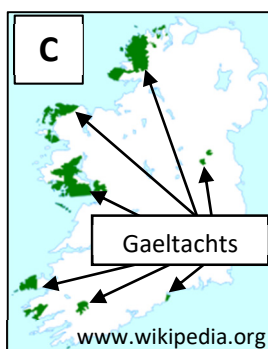
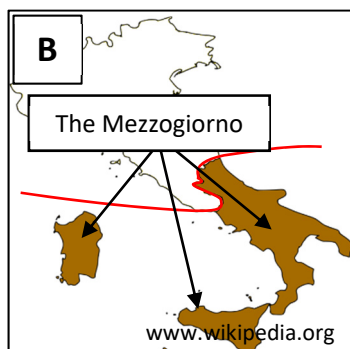
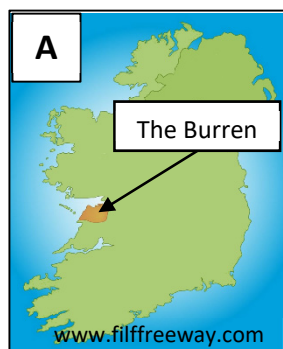
Cultural

Geomorphological

Description of Region	Type of region
A region in Ireland with a unique landscape based on rock type, structure or relief.	
A region in Ireland where people share a specific language, religion and/or way of life.	
A region in Europe with specific boundaries managed by an authority such as a local government.	
A poorer region in Europe where there is an underdevelopment of economic activities.	

- (ii) Examine each of the maps below showing examples of different types of regions.

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

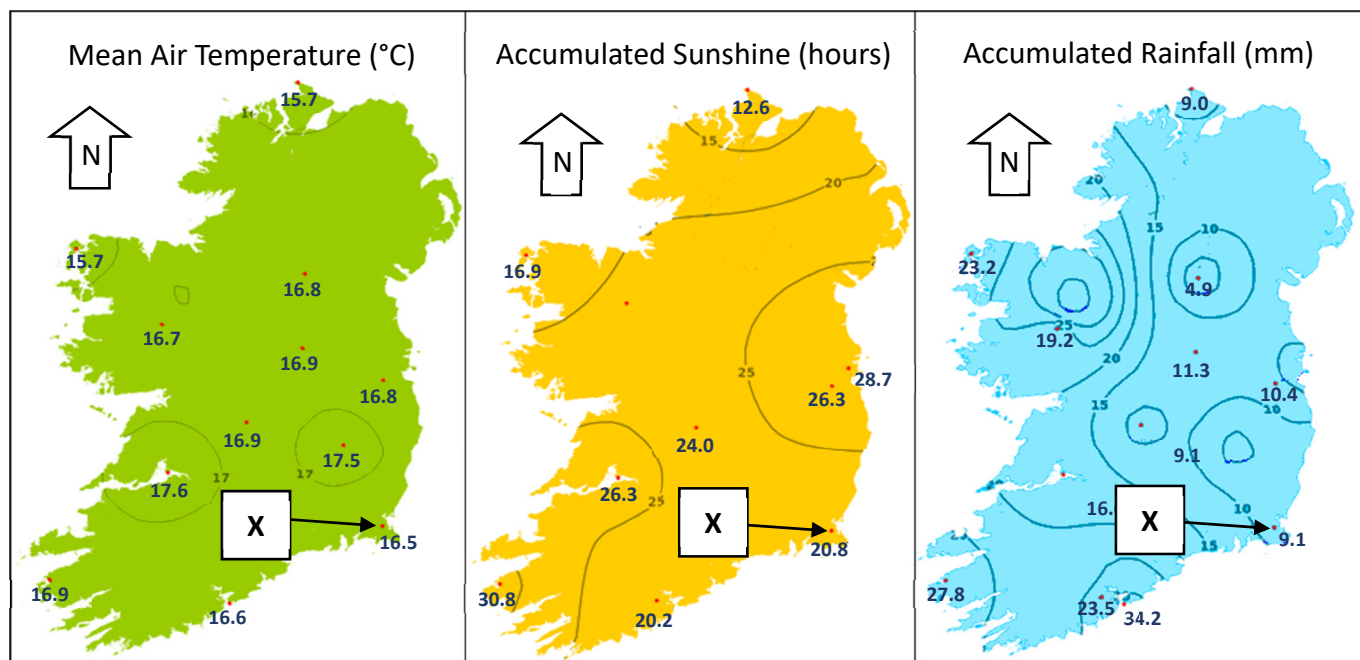


Description of Region	Example of region
A region in Ireland with a unique landscape based on rock type, structure or relief.	
A region in Ireland where people share a specific language.	
A region in Europe with specific boundaries managed by an authority such as a local government.	
A poorer region in Europe where there is an underdevelopment of economic activities.	

[8m]

10. Weather

Weather Charts for Monday 6th to Sunday 12th September 2021



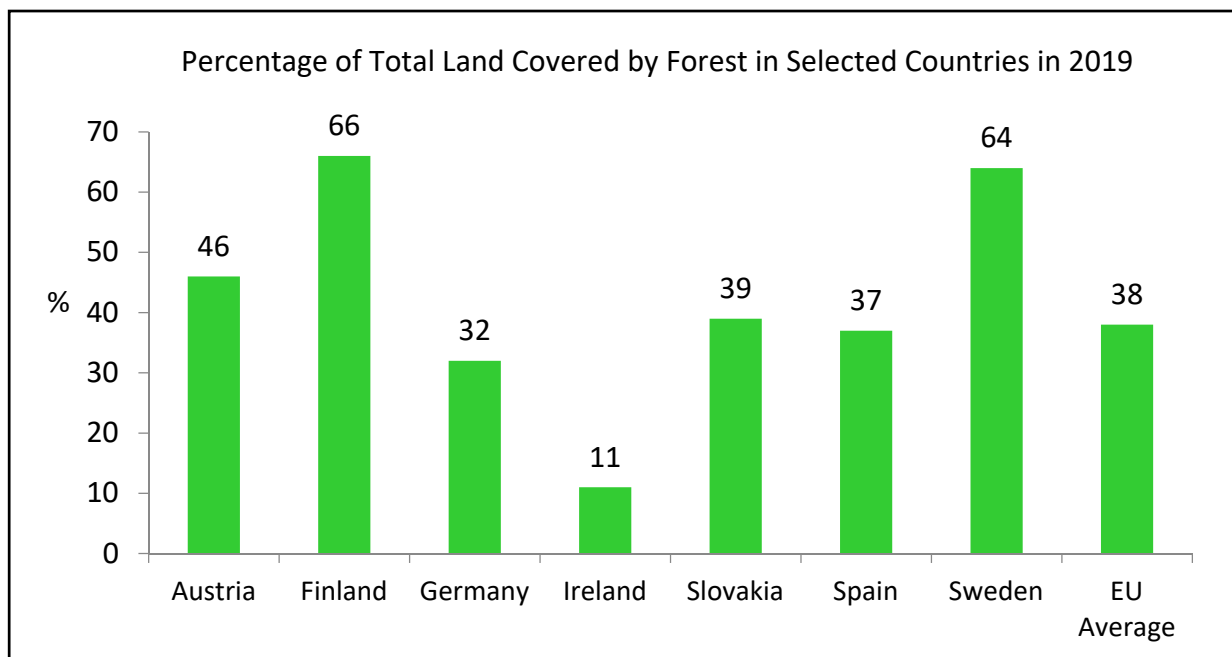
Amended from www.met.ie

Examine the weather charts above and state whether each of the following statements is true or false by ticking (✓) the correct box.

	True	False
(i) The mean air temperature between 6 th and 12 th September for the area marked X was 16.5 °C.	☐	☐
(ii) There were more than 25 hours of accumulated sunshine in the northwest of Ireland between 6 th and 12 th September.	☐	☐
(iii) The area marked X received the highest levels of rainfall in the country between 6 th and 12 th September.	☐	☐
(iv) Lines on a weather map that join areas of equal sunshine are called isohels.	☐	☐

[8m]

11. Statistical Interpretation



Amended from Eurostat

Examine the bar chart above which shows the percentage of land covered by forests in selected countries and the European Union (EU) average for 2019. Answer each of the following questions.

- (i) How many countries had a higher percentage of land covered by forests than the EU average in 2019?

- (ii) Name **one** country that had twice as much land covered by forests as Germany in 2019.

- (iii) Calculate the average percentage of land covered by forests in 2019 for the countries shown on the chart above.

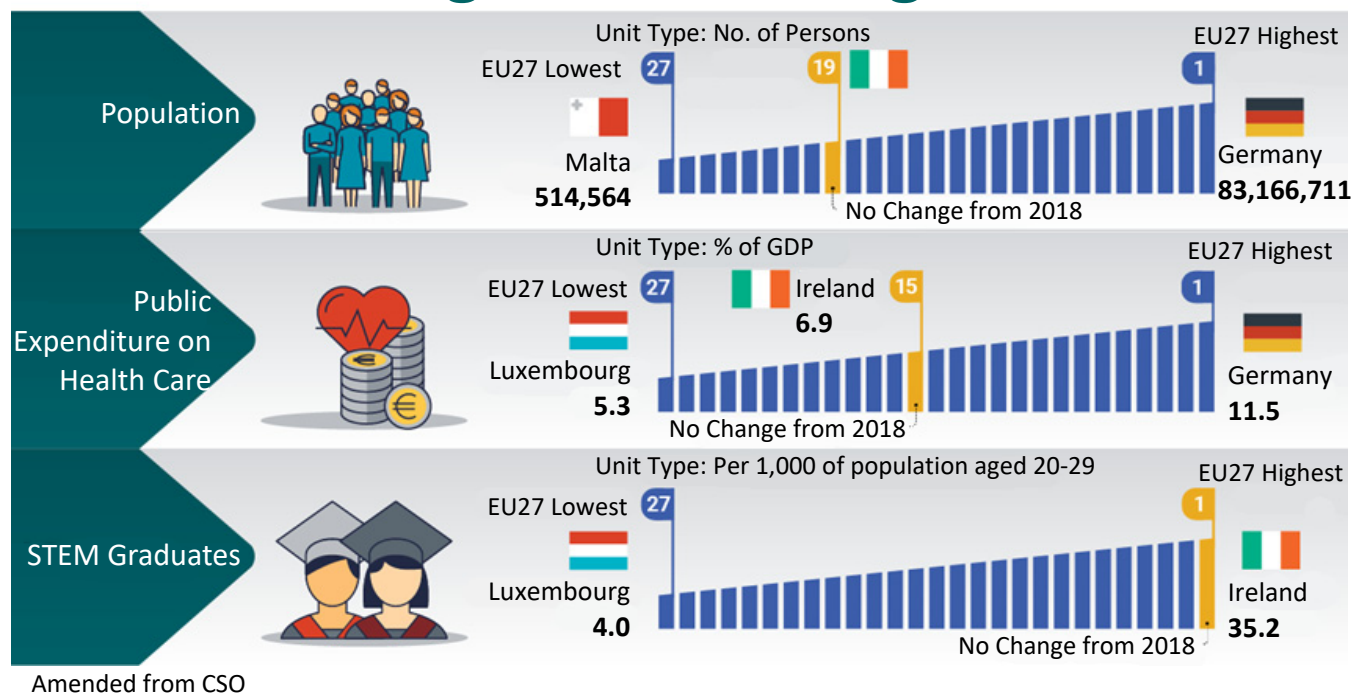
- (iv) State **two** benefits of a country having a large area of land covered by forest.

1.
2.

[8m]

12. Graphical Interpretation

Measuring Ireland's Progress 2019



Examine the infographic above which shows where Ireland ranked in the European Union (EU) in 2019 for the following metrics: population, public expenditure on health care and the number of Science, Technology, Engineering and Maths (STEM) graduates. Answer each of the following questions.

- (i) What percentage of its GDP did Ireland spend on health care in 2019?

- (ii) Which country was ranked 27th in two of the metrics?

- (iii) Calculate the difference in number of persons between the lowest and highest ranked countries in terms of population.

- (iv) Ireland is ranked highest in the EU for the number of STEM graduates in the 20 to 29 age group. Briefly explain **one** advantage to Ireland's economy of this high rank.

[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.

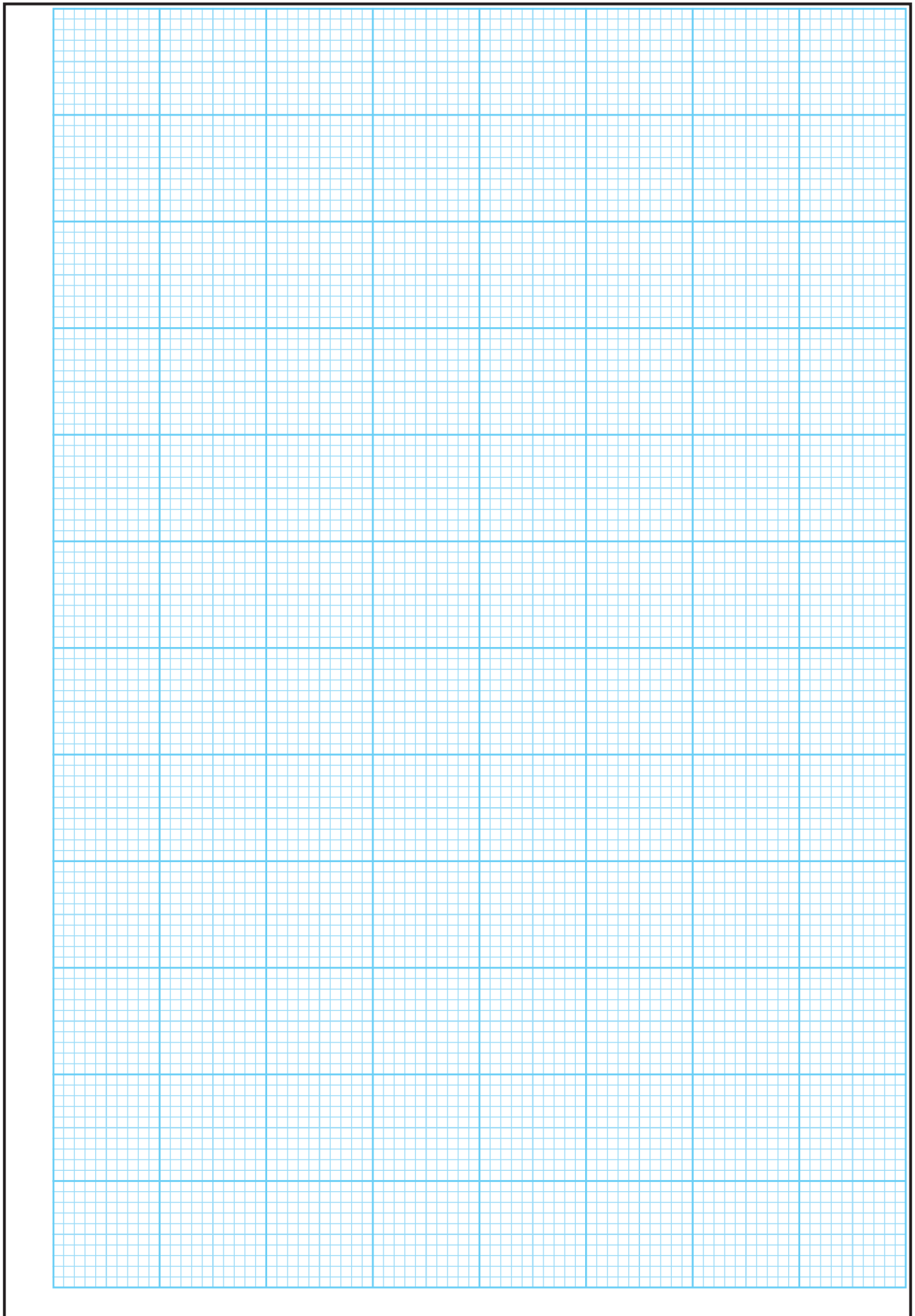
Use the left-hand column to label each part, as shown below.

Question		0 4	Start each question on a new page
Part			
(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.

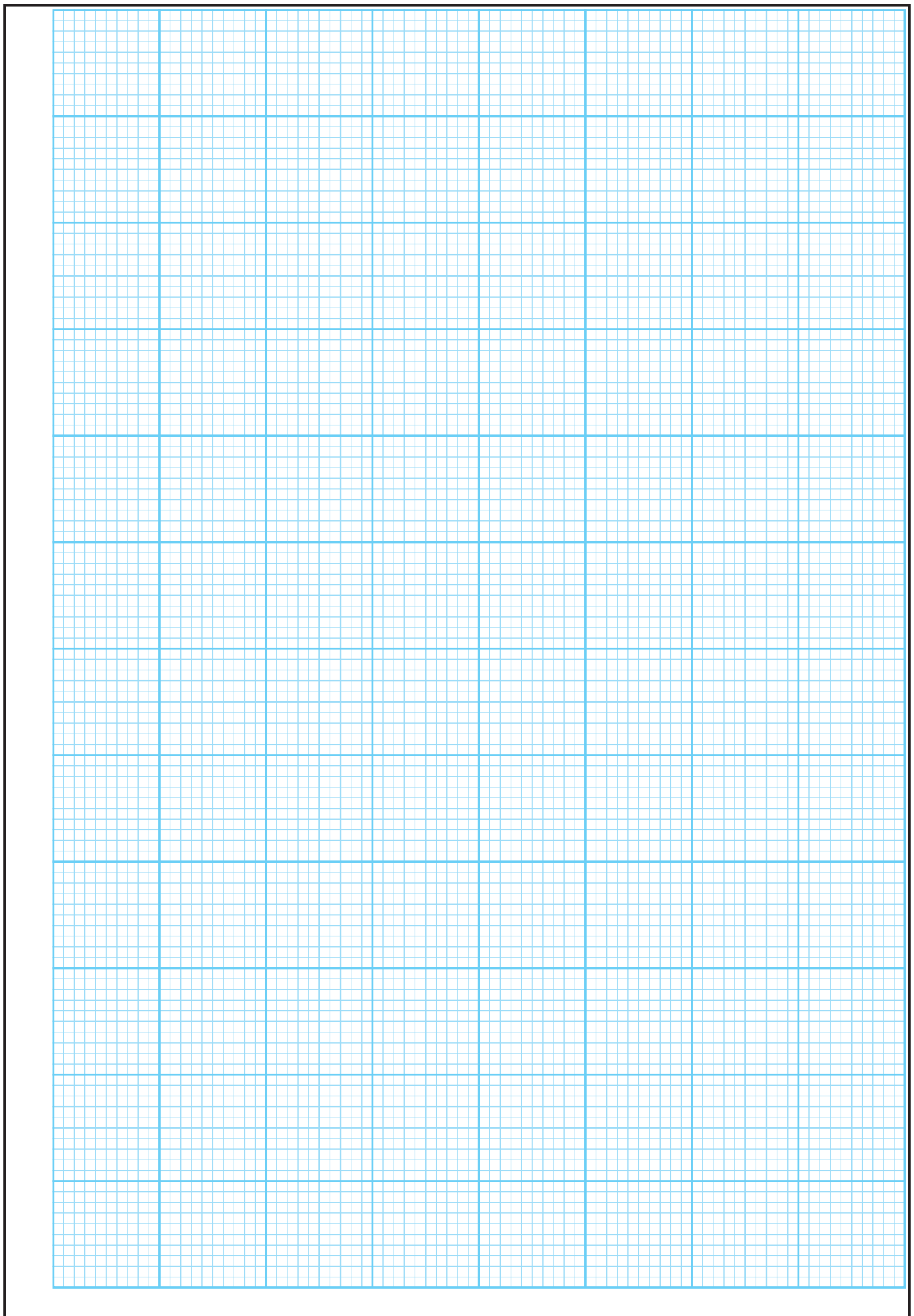
You do not need to use all of the pages in this answerbook. If you run out of space in this answerbook, you may ask the superintendent for more paper or graph paper.

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



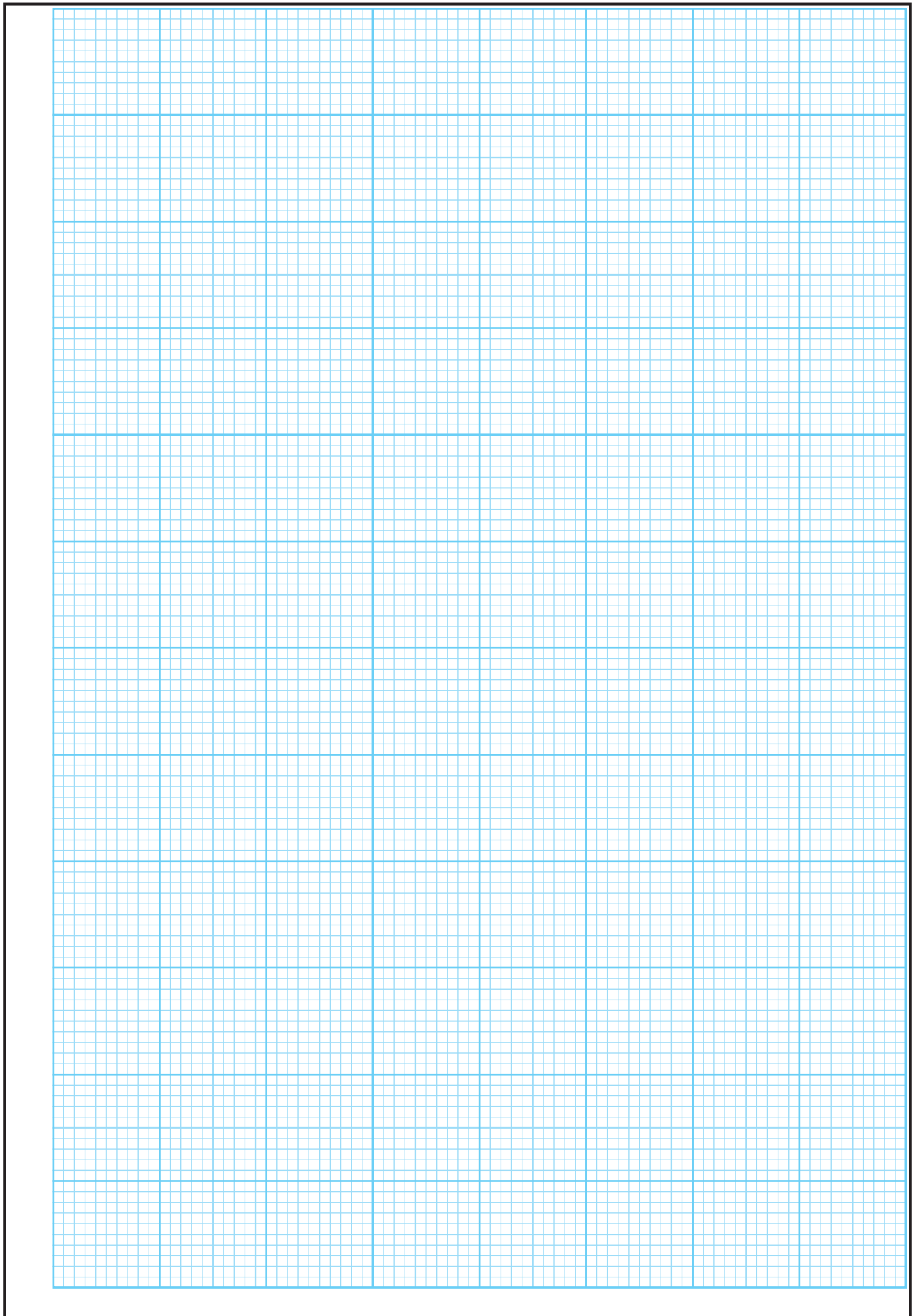
Question

☐☐

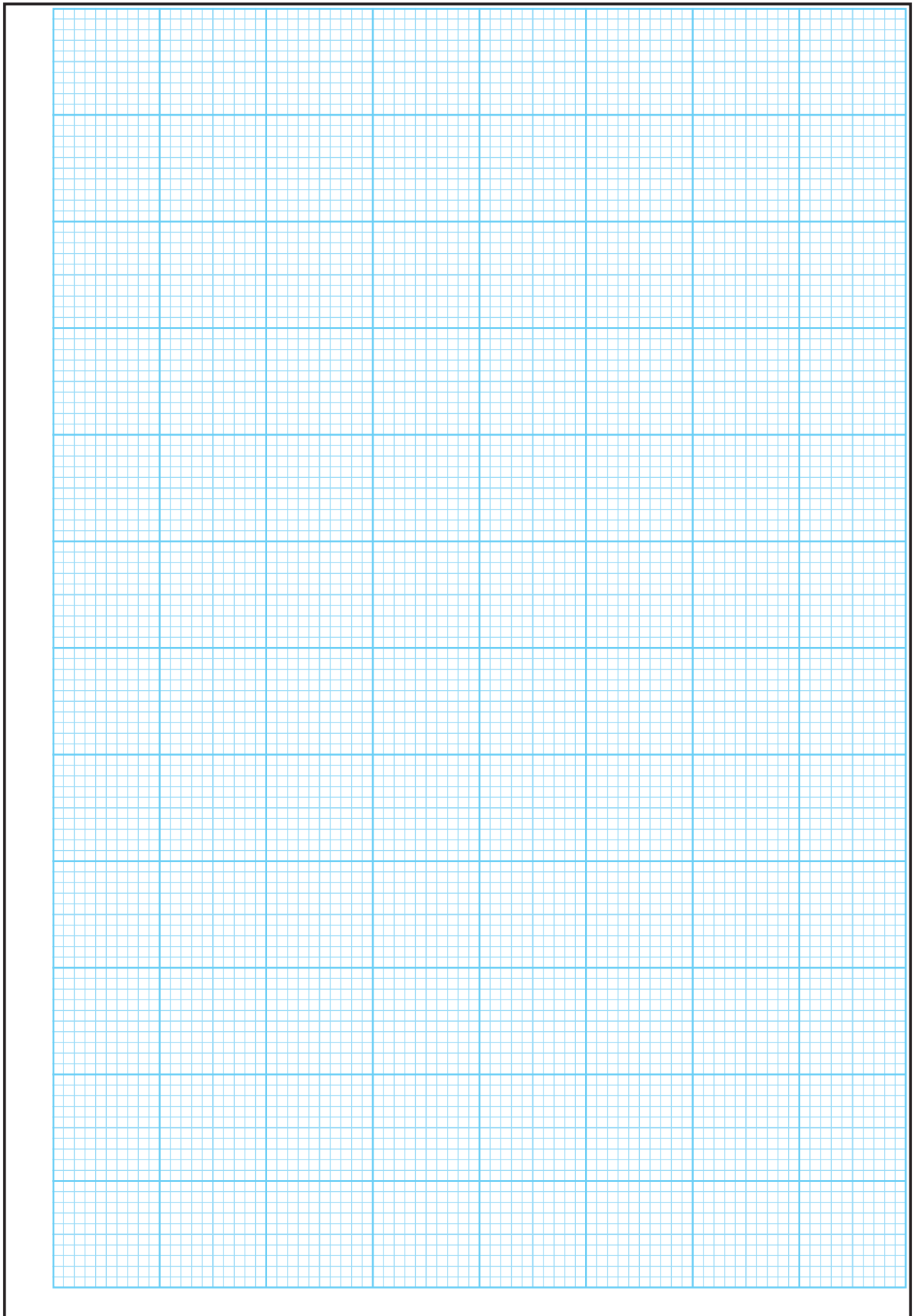


Question

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Question



Question

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Part

[illegible]

Part

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Part

[illegible]

Part

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Part

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Leaving Certificate – Higher Level

Geography Part One and Answerbook

Friday 10 June

Morning 9:30 - 12:20