



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Leaving Certificate Examination 2023

Geography

Part One and Answerbook

Ordinary Level

Friday 9 June Morning 9:30 - 12:20

400 marks

Examination Number

----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

Day and Month of Birth

----------------------	----------------------	----------------------	----------------------

For example, 3rd February
is entered as 0302

Centre Stamp

--

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.

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 **100 marks**

Attempt any **TEN** questions.

All questions carry equal marks.

PART TWO Structured Questions **300 marks**

You must attempt **three** questions. This must include one question from two 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).

The third question can be from any section.

All questions carry equal marks.

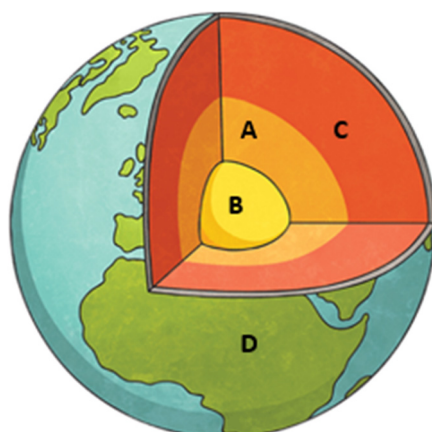
PART ONE – SHORT-ANSWER QUESTIONS – 100 MARKS

Attempt any **TEN** questions.

All questions carry equal marks.

THESE QUESTIONS ARE TO BE ANSWERED IN THE SPACES PROVIDED

1. Layers of the Earth



Amended from www.twinkl.ie

Examine the diagram above showing the different layers of the earth 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.

Feature	Letter
Inner core	
Outer core	
Crust	
Mantle	

- (ii) Which tectonic plate is Ireland part of?
Tick (✓) the correct box.

Nazca ☐

Eurasian ☐

[10m]

2. Rocks



Amended from www.geology.com

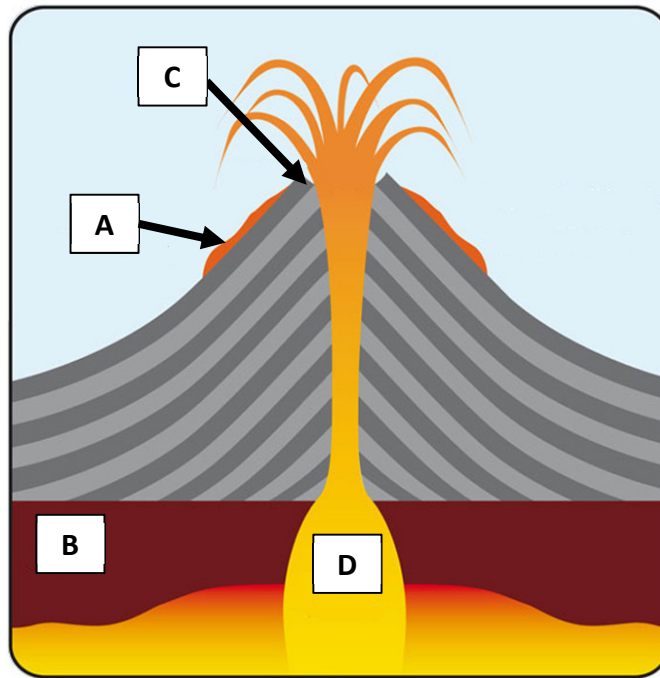
Examine the photographs above. Complete the table by answering each of the following questions. Some of the table has been completed for you.

- (i) Match each of the photographs **A**, **B**, **C** and **D** with the rock type that best matches it in the table below.
- (ii) State whether each rock type is an igneous, sedimentary or a metamorphic rock.

Q.2 (i) Letter	Rock type	Q.2 (ii) Igneous/Sedimentary/Metamorphic
C	Basalt	
	Limestone	
	Granite	Igneous
B	Quartzite	

[10m]

3. Volcanoes



Amended from www.bgs.ac.uk

Examine the diagram of a volcano 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.

Feature	Letter
Magma chamber	
Crater	
Crust	
Flowing lava	

- (ii) Which of the following is the name given to a volcano that has not erupted in many hundreds of years but may erupt again?

Tick (✓) the correct box.

Active ☐

Dormant ☐

[10m]

4. Physical Processes

Match each of the **physical processes** below with the **feature** most associated with it, by writing the correct letter in each case, in the table below.

Letter	Physical Process
A	River erosion
B	Coastal erosion
C	Glacial deposition
D	Mechanical weathering
E	River deposition

Feature	Letter
Drumlin	
Levee	
Interlocking spurs	
Sea cliff	
Scree	

[10m]

5. Regions

Match the **type of region** with the **example of the region** that best matches it, by writing the correct letter in each case, in the table below.

Letter	Type of Region
A	An urban region
B	A geomorphological region
C	A climatic region
D	A cultural region in Ireland defined by language
E	A region of industrial decline

Example of Region	Letter
Warm Temperate Oceanic	
Limerick City	
Sambre Meuse Valley, Belgium	
Gaeltacht	
The Burren	

[10m]

6. Ordnance Survey Map

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

- (i) Name the feature shown at each of the following grid references:

H 391 061:
H 419 066:
H 503 037:

- (ii) What does the letter N stand for in relation to the N3 and the N55 roads?

--

- (iii) Draw the Ordnance Survey map symbol for Parking in the space below.

--

[10m]

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) What is the length of the N3, from where it enters the map at H 429 080 to the roundabout at H 436 041?

Tick (✓) the correct box.

4.2km ☐

3.2km ☐

- (ii) What is the height of the highest point on the map?

Tick (✓) the correct box.

218m ☐

320m ☐

[10m]

8. Aerial Photograph

Examine the aerial photograph accompanying this paper, and the sections from it below, and answer each of the following questions.



- (i) Give the location of each of the sections from the aerial photograph, using accepted notation (right background, centre foreground, etc.).

A
B
C
D

- (ii) Indicate whether the aerial photograph accompanying this paper is a vertical or an oblique aerial photograph, by ticking (✓) the correct box.

Vertical ☐

Oblique ☐

[10m]

9. Weather Statistics

Mean Monthly Temperatures and Monthly Rainfall at Oak Park Weather Station 2021

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Mean Temperature (°C)	3.9	6.1	7.6	7.1	9.7	14.3	17.7	15.8	15.4	11.9	8.0	6.9
Total Rainfall (mm)	86	110	37	14	123	16	61	59	39	112	20	102

Amended from www.met.ie

Examine the table above which shows the mean monthly temperatures and monthly rainfall at Oak Park Weather Station in 2021 and answer each of the following questions.

- (i) What was the mean temperature (°C) for October?

- (ii) What was the highest mean monthly temperature (°C)?

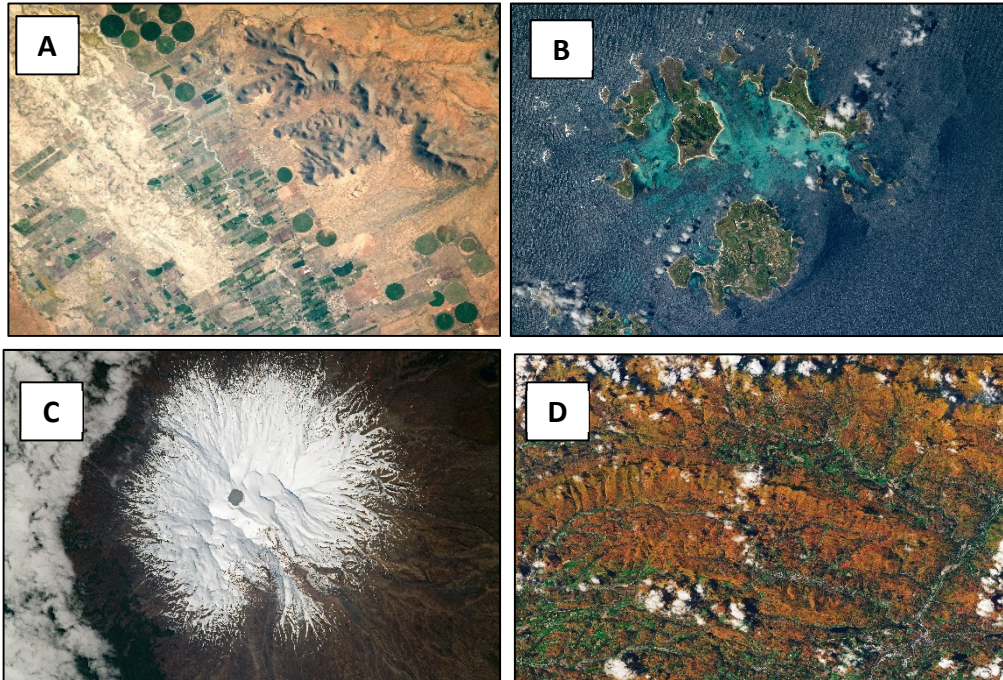
- (iii) Which month experienced the highest total rainfall?

- (iv) In how many months were the mean temperatures greater than 10°C?

- (v) What was the total rainfall (mm) for January, February and March combined?

[10m]

10. Satellite Interpretation



Amended from www.earthobservatory.nasa.gov

Examine the satellite images above and answer each of the following questions.

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

Description	Letter
Mount Ruapehu volcano, New Zealand	
Autumn in the Adirondack mountains, USA	
Isles of Scilly, off the coast of Cornwall, UK	
Chihuahuan Desert agriculture, Mexico	

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

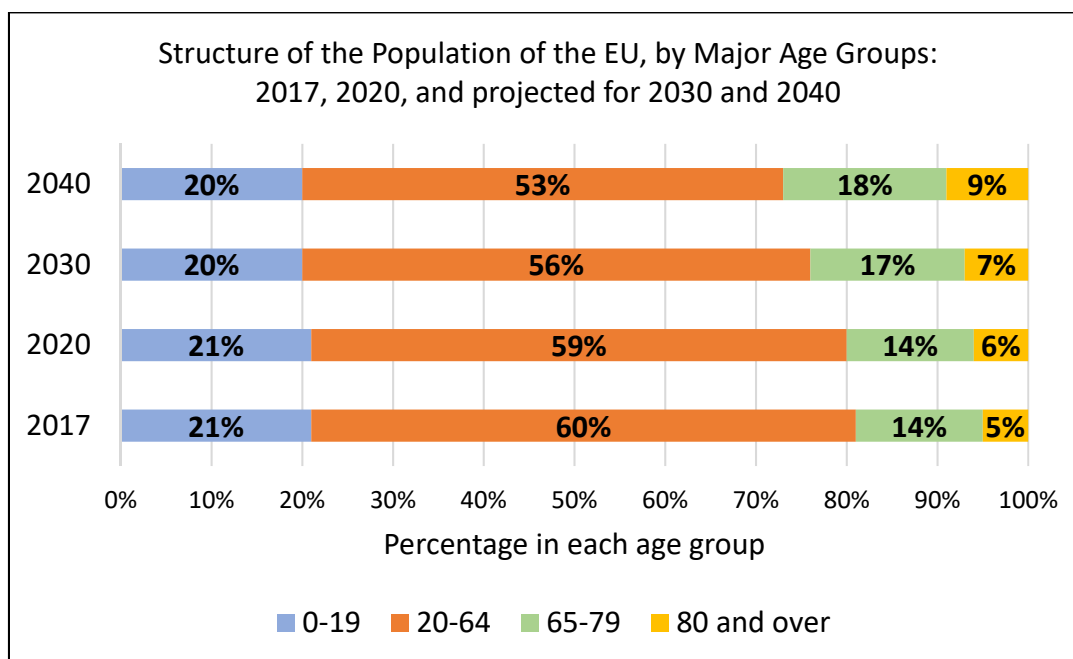
The supply of water to crops to help growth is called *irrigation*.

True ☐

False ☐

[10m]

11. European Union Population



Amended from www.ec.europa.eu

Examine the stacked bar chart above which shows the structure of the population of the European Union (EU) by major age group for 2017, 2020, and projected for 2030 and 2040 and answer each of the following questions.

- (i) What percentage of the EU population was aged between 0-19 years in 2017?

- (ii) Which age group had the lowest percentage of population in 2020?

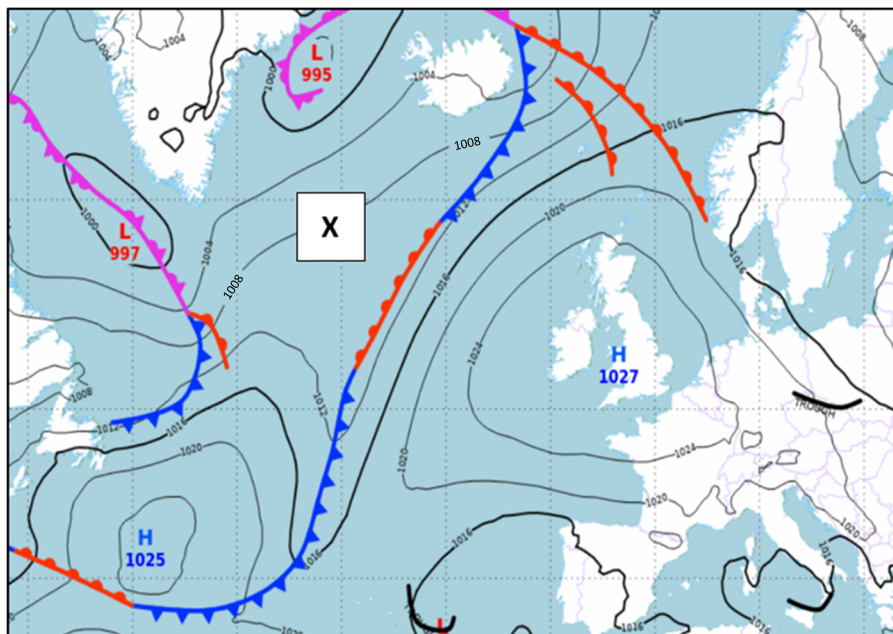
- (iii) Which age group is projected to have the highest percentage of population in 2030?

- (iv) In what year is the EU projected to have 9% of its population in the 80 year and over age group?

- (v) State **one** age group that had no change in percentage between 2017 and 2020.

[10m]

12. Weather



Amended from www.met.ie

Examine the weather chart above and answer each of the following questions.

- (i) What does **L** on the weather chart indicate?

- (ii) In the weather chart above, is the weather over Ireland likely to be wet and windy **or** calm and dry? Tick (✓) the correct box.

Wet and windy ☐

Calm and dry ☐

- (iii) What is the barometric pressure (in millibars/hectopascals) at the point labelled **X**?

- (iv) Draw the weather chart symbol for a cold front in the box below.

- (v) What is the name for the lines on a weather chart that join places of equal air pressure? Tick (✓) the correct box.

Isotherms ☐

Isobars ☐

[10m]

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.

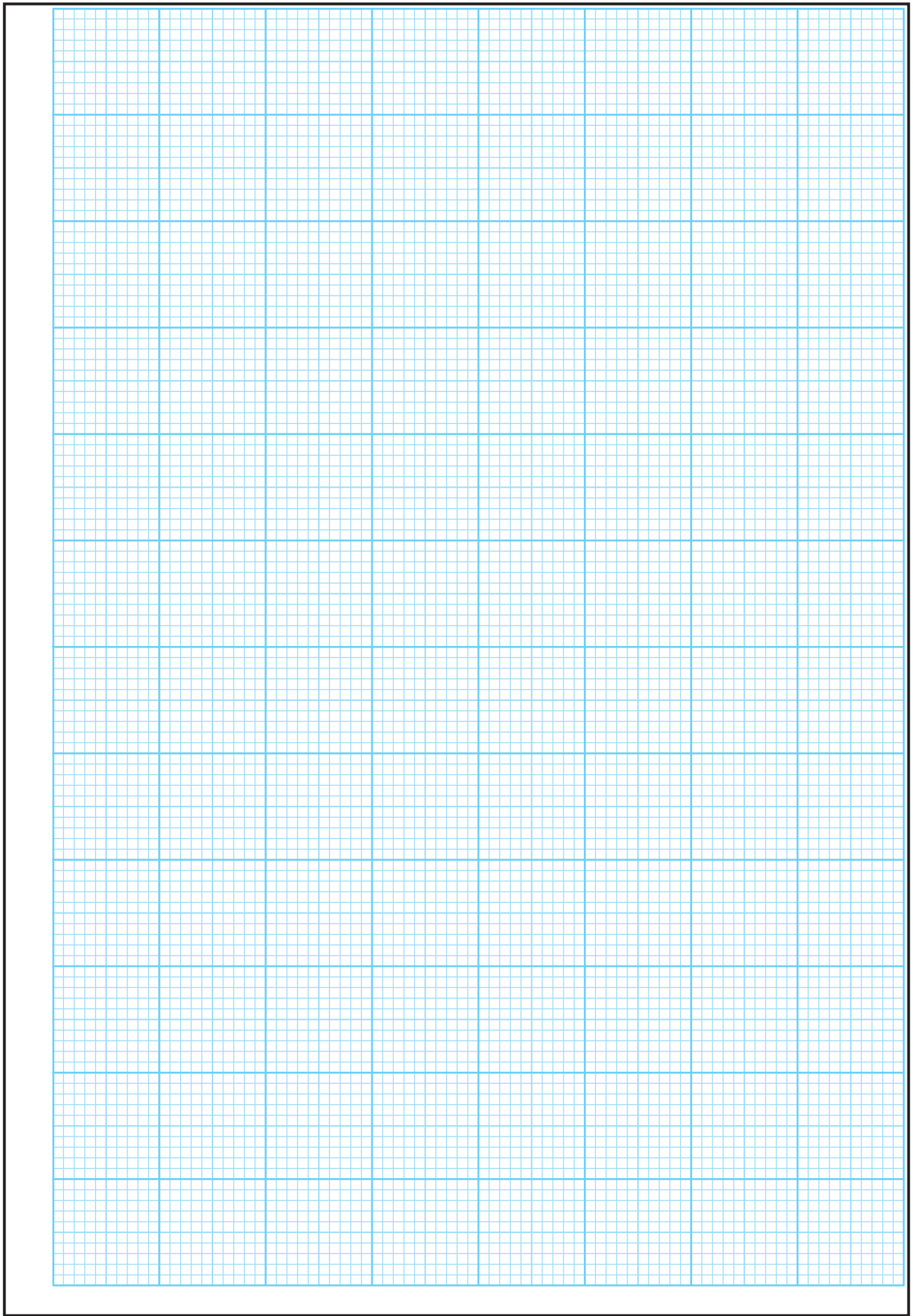
Use the left-hand column to label each part, as shown below.

Question		0 4	Start each question on a new page
Part			
(a)			
(b)(i)			
(b)(ii)			

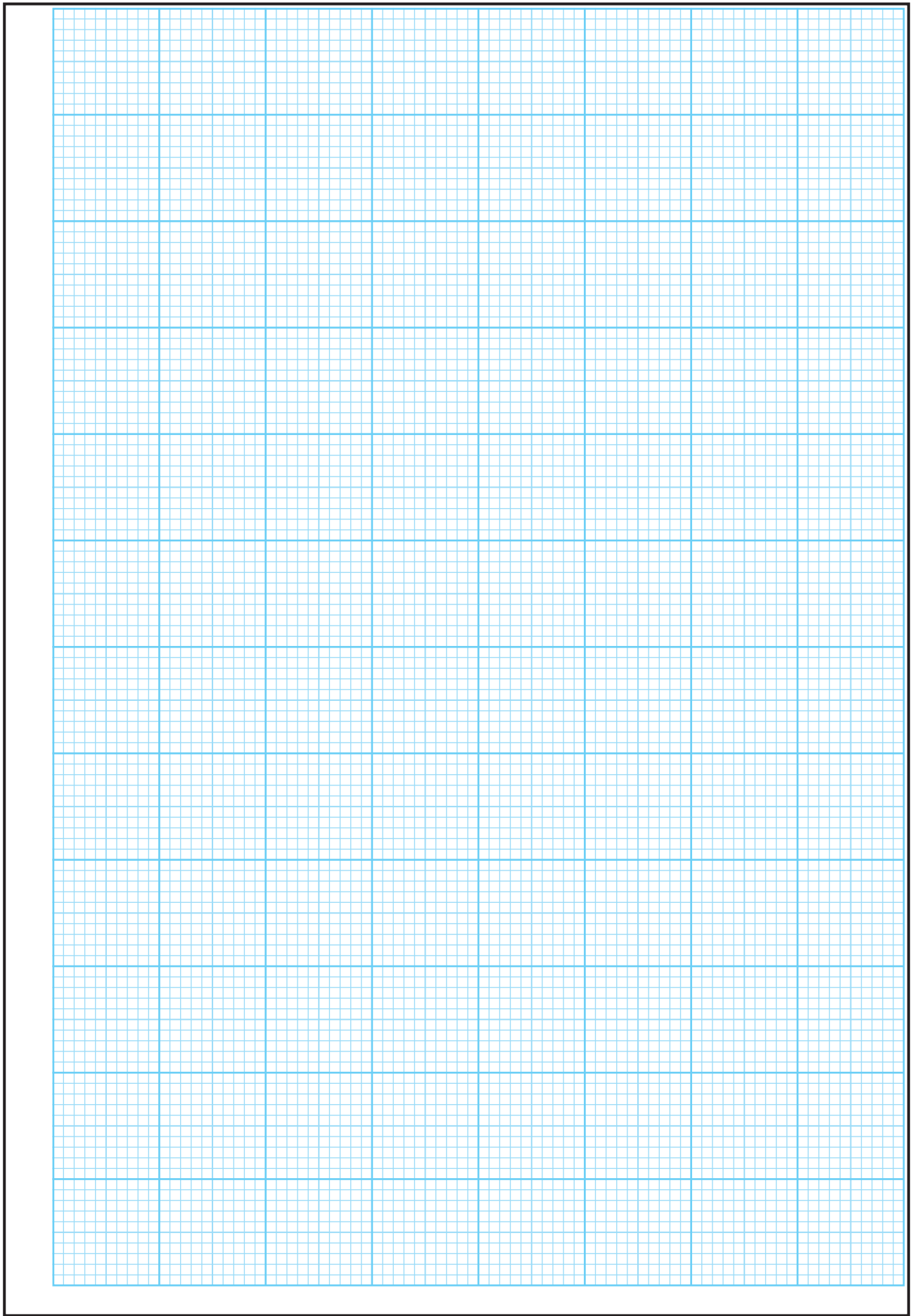
Four pages of graph paper are provided on the next four pages of this answerbook. On pages with graph paper, the box for the question number is at the bottom of the page.

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.

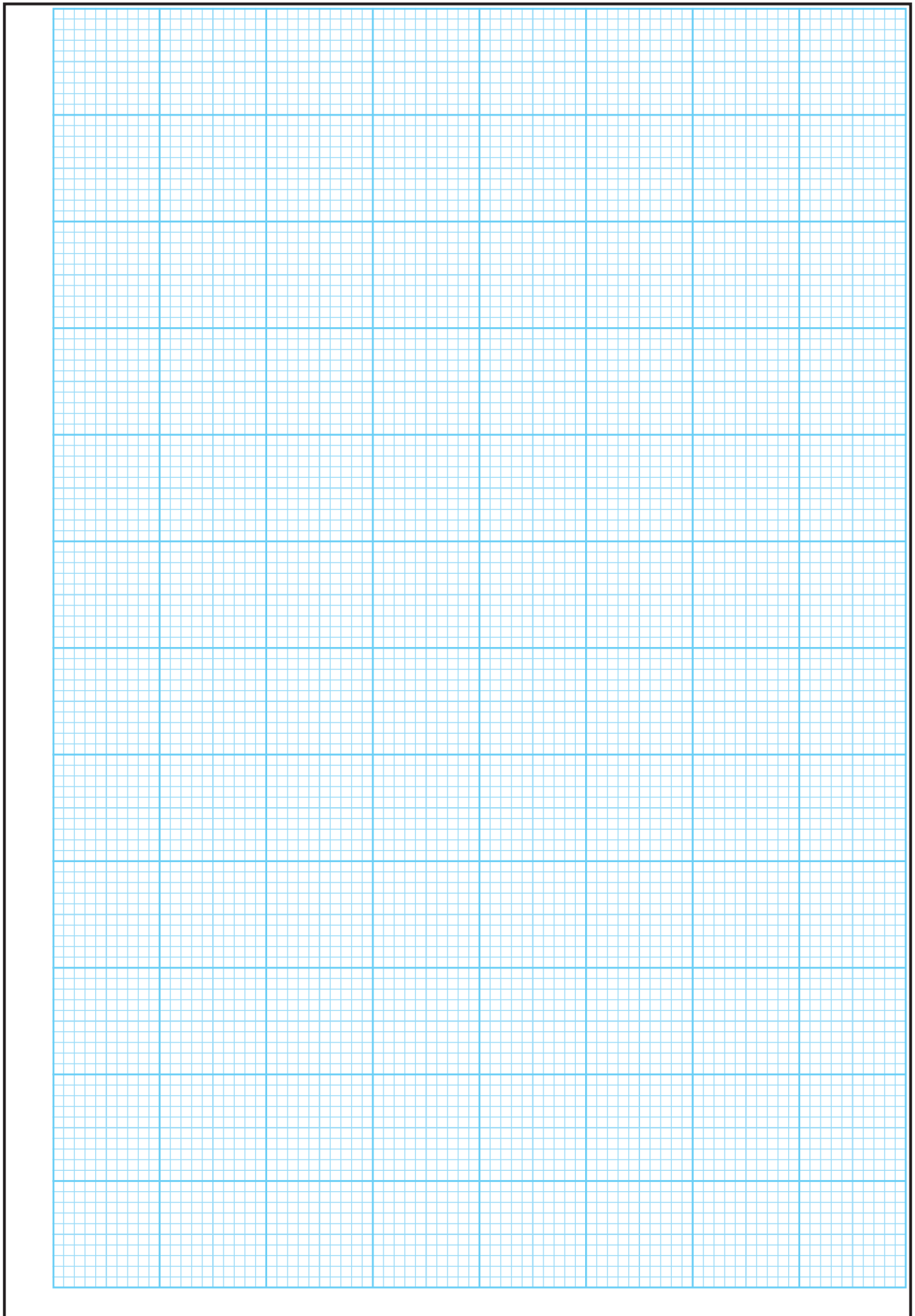
Write your answers in blue or black pen. You may use pencil for sketches, graphs and diagrams only.



Question

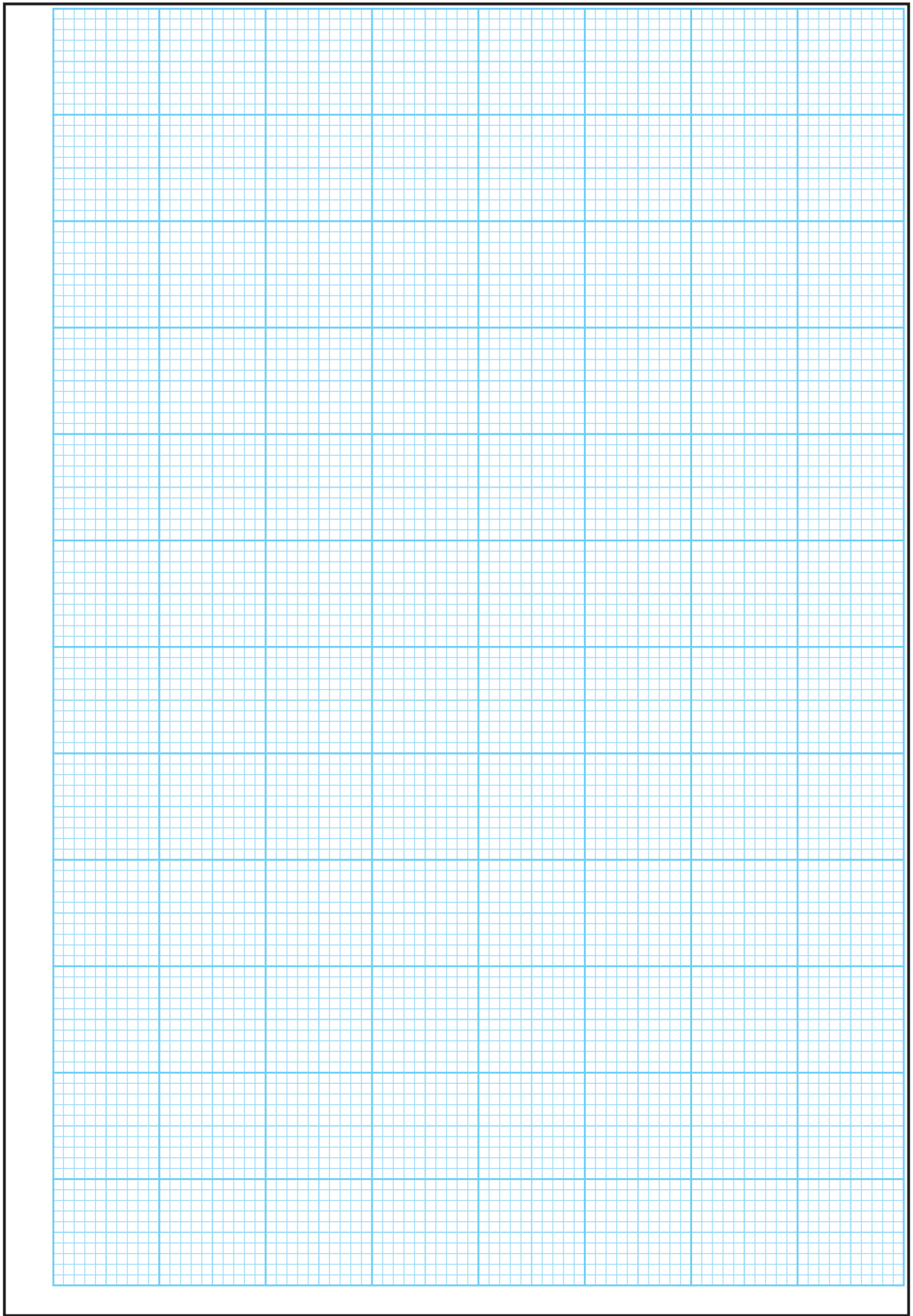


Question



Question

☐☐



Question

Part

[illegible]

Part

[illegible]

Part

[illegible]

Part

[illegible]

Part

[illegible]

Part

[illegible]

--	--

Part

[illegible]

--	--

Part

[illegible]

Part

[illegible]

--	--

Part

[illegible]

--	--

Part

[illegible]

--	--

Part

[illegible]

Part

[illegible]

--	--

Part

[illegible]

--	--

Part

[illegible]

Part

[illegible]

--	--

Part

[illegible]

Part

[illegible]

Part

[illegible]

Part

[illegible]

--	--

Part

[illegible]

--	--

Part

[illegible]

Do not write on this page

Copyright notice

This examination paper may contain text or images for which the State Examinations Commission is not the copyright owner, and which may have been adapted, for the purpose of assessment, without the authors' prior consent. This examination paper has been prepared in accordance with *Section 53(5) of the Copyright and Related Rights Act, 2000*. Any subsequent use for a purpose other than the intended purpose is not authorised. The Commission does not accept liability for any infringement of third-party rights arising from unauthorised distribution or use of this examination paper.

Leaving Certificate – Ordinary Level

Geography Part One and Answerbook

Friday 9 June

Morning 9:30 - 12:20