



Coimisiún na Scrúduithe Stáit  
State Examinations Commission

Leaving Certificate Examination 2024

# Geography

Part Two

Higher Level

2 hours 50 minutes

400 marks

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## **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.

***THESE QUESTIONS ARE TO BE ANSWERED IN THE ANSWERBOOK CONTAINING PART ONE***

**SECTION 1**  
**PATTERNS AND PROCESSES IN THE PHYSICAL ENVIRONMENT**

**Questions 1 to 3**

All questions carry 80 marks.

**Question 1**

**1A. Ordnance Survey Map**

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

Draw a sketch map of the area shown to half scale.

On it, correctly show and label each of the following:

- The entire area of Lough Rusheen in the centre of the map
- The entire area of land above 300 metres west of Easting 12
- An area of deciduous woodland in the southwest of the map
- The entire course of the Castlebar River from M 180 923 to M 139 903, where it enters Lannagh/Castlebar Lough.

**[20m]**

**1B. Metamorphic Rocks**

Examine the formation of metamorphic rocks, with reference to examples from Ireland.

**[30m]**

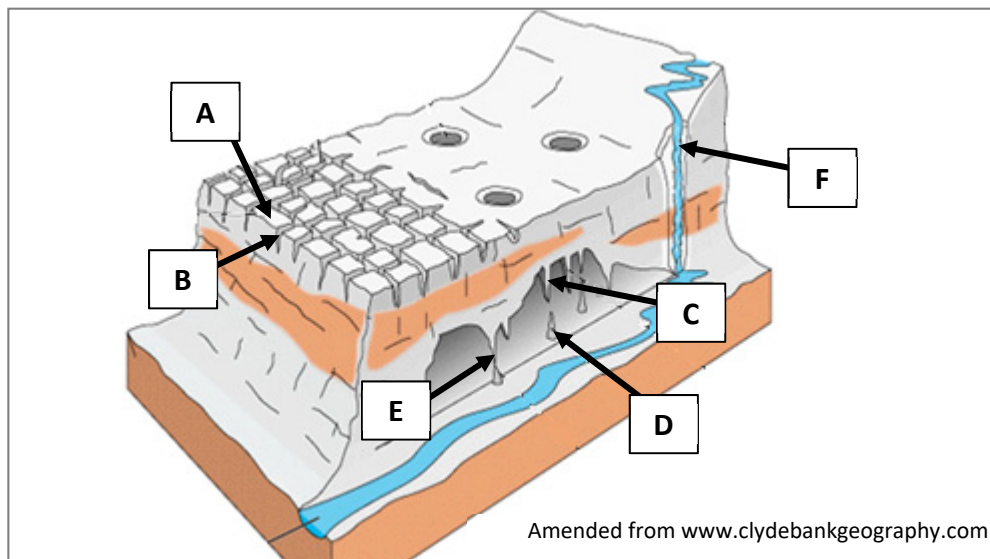
**1C. Plate Boundaries**

Describe and explain destructive plate boundaries with reference to examples you have studied.

**[30m]**

## Question 2

### 2A. Karst Landscapes



Examine the diagram above showing a karst landscape and answer each of the following questions.

- (i) Name each of the surface features labelled **A** and **B** in the diagram above.
- (ii) Name the underground features labelled **C**, **D** and **E** in the diagram above.
- (iii) State whether the following statement is true or false:  
The type of river at **F** is a river of resurgence.
- (iv) Name the type of chemical weathering most associated with the formation of a karst landscape.
- (v) State what is meant by the term *permeable rock*.
- (vi) What is the term given to vertical cracks found in limestone?

[20m]

### 2B. Human Interaction with Surface Processes

'Human activity impacts on surface processes.'

Examine this statement with reference to **one** of the following:

- The impact of flood control measures on river processes
- The impact of coastal defence measures on coastal processes
- The impact of human activities on mass movement processes.

[30m]

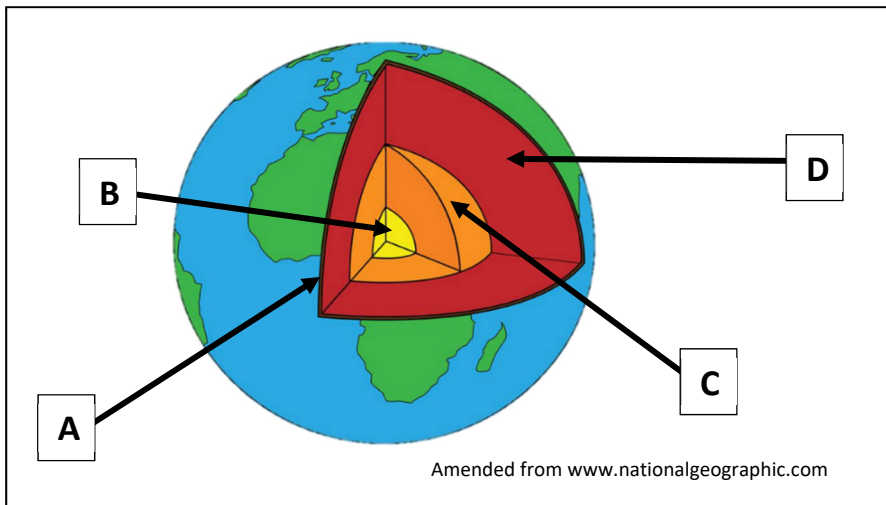
### 2C. Tectonic Activity – Irish Landscape

Examine the impact of tectonic activity on the Irish landscape.

[30m]

### Question 3

#### 3A. Structure of the Earth



Examine the diagram of the structure of the earth above and answer each of the following questions.

- (i) Name each of the layers of the earth labelled **A**, **B**, **C** and **D**.
- (ii) Name **one** tectonic plate that you have studied.
- (iii) What is the term for molten rock under the surface of the earth?
- (iv) Name **one** of the main minerals that make up the part of the earth labelled **B** above.
- (v) Name the process by which one tectonic plate is forced under another.
- (vi) Explain briefly how tectonic plates move.

[20m]

#### 3B. Isostasy

Examine how isostasy impacts on the coastal landscape and/or on the fluvial landscape.

[30m]

#### 3C. Surface Processes

Answer (i) or (ii)

- (i) Examine the role of the **processes of erosion** on the formation of **one** fluvial landform **or one** coastal landform **or one** glacial landform that you have studied.

Or

- (ii) Describe and explain the factors governing the operation of **one** mass movement process that you have studied.

[30m]

**SECTION 2**  
**REGIONAL GEOGRAPHY**

**Questions 4 to 6**

All questions carry 80 marks.

**Question 4**

**4A. Map Skills**

Draw an outline map of a **Continental / Sub-Continental** region that you have studied.

On it, show and name each of the following:

- The outline of a named feature of relief (upland or lowland)
- A named urban centre
- A named road or rail link
- The course of a named river.

**[20m]**

**4B. Concept of a Region**

Examine how **one** of the following can be used to define cultural regions, with reference to example(s) that you have studied.

- Language
- Religion.

**[30m]**

**4C. Economic Activity**

Examine **two** factors that influence the development of **one** tertiary economic activity in a **European** region (not in Ireland) that you have studied.

**[30m]**

## Question 5

### 5A. Transport in the European Union

Passenger Numbers (in millions) in Selected European Union (EU) Airports

Airports	2019	2020	2021
Frankfurt	71	19	25
Orly-Paris	32	11	16
Dublin	33	7	8
Charles De Gaulle-Paris	76	22	26
Barcelona	52	12	18
Schiphol-Amsterdam	72	21	25
Madrid	60	17	23

Amended from Eurostat

Examine the table above showing passenger numbers in selected EU airports from 2019 to 2021 and answer each of the following questions.

- (i) Which airport had the highest number of passengers in 2019?
- (ii) How many passengers (in millions) did Orly-Paris airport have in 2021?
- (iii) Name the **two** airports that had the same number of passengers (in millions) in 2021.
- (iv) Calculate the mean (average) passenger numbers (in millions) in Barcelona airport for 2019, 2020 and 2021.
- (v) Explain briefly **one** reason why passenger numbers fell in 2020.
- (vi) Explain briefly **one** reason why air transport is important to Ireland.

[20m]

### 5B. Socio-Economic Regions

Examine the causes **and** impacts of industrial decline with reference to any region(s) that you have studied.

[30m]

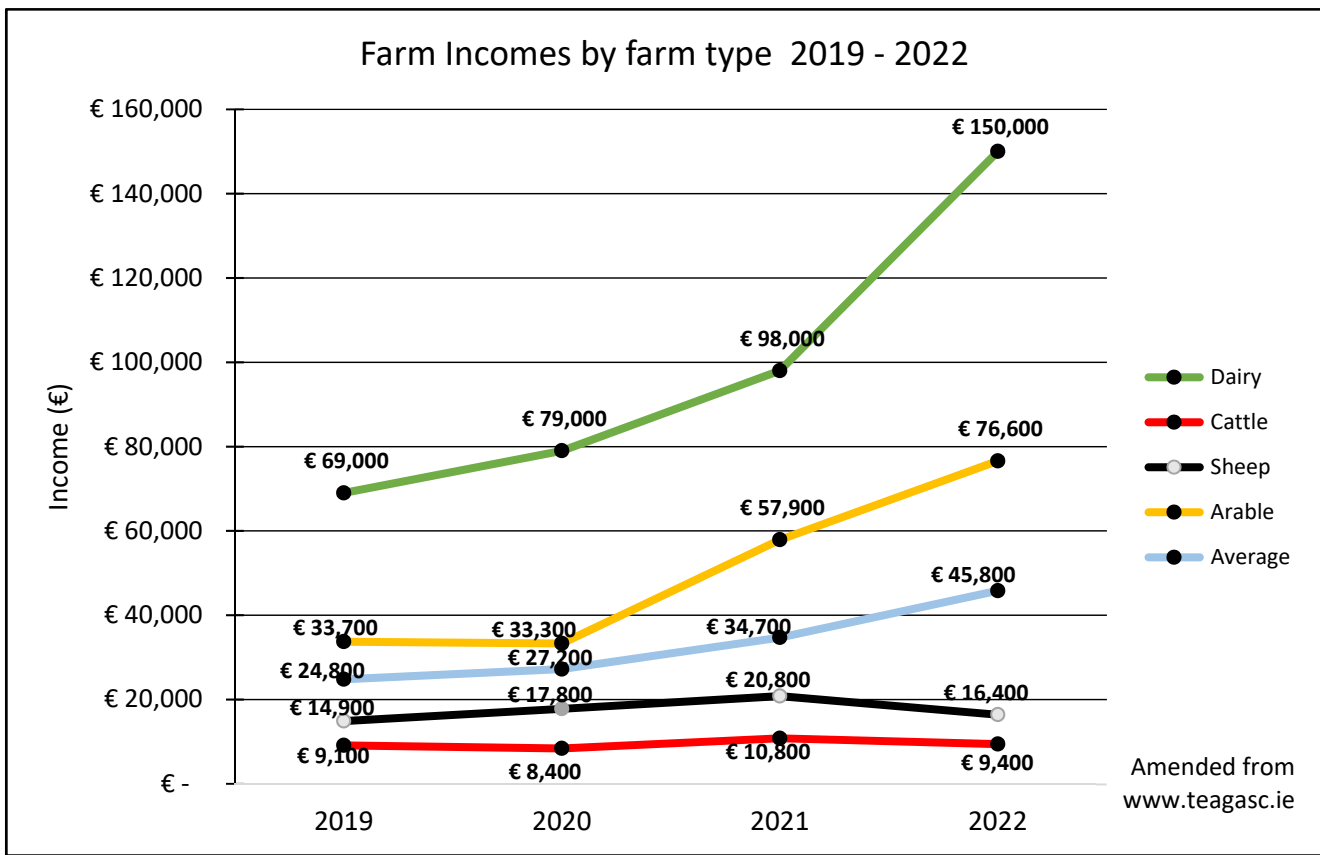
### 5C. Primary Economic Activity - Agriculture

Account for the development of agriculture in a **Continental / Sub-Continental** region (not in Europe) that you have studied.

[30m]

## Question 6

### 6A. Farm Incomes by farm type



Examine the graphic above which shows family farm incomes by sector, in Ireland, from 2019 to 2022 and answer the following questions.

- (i) What was the farm income (in €) for arable farmers in 2020?
- (ii) Name **two** types of farm where income declined from 2021 to 2022.
- (iii) By how much (in €) did dairy farm incomes increase between 2019 and 2022?
- (iv) Calculate the change in sheep farm income between 2019 and 2022.
- (v) Explain briefly what is meant by the term *arable farming*.
- (vi) Explain briefly how higher farm incomes benefit Ireland.

[20m]

### 6B. The European Union

Explain **each** of the following challenges currently facing the European Union member states:

- Social challenges
- Economic challenges.

[30m]

### 6C. Urban Development

Examine the factors that have influenced the development of **one** urban area that you have studied.

[30m]

**SECTION 3**

**ELECTIVES**

**Questions 7 to 12**

**Patterns and Processes in Economic Activities (Questions 7, 8 and 9)**

**Patterns and Processes in the Human Environment (Questions 10, 11 and 12)**

All questions carry 80 marks.

## PATTERNS AND PROCESSES IN ECONOMIC ACTIVITIES

### Questions 7 to 9

#### Question 7

##### 7A. Aerial Photograph

Examine the aerial photograph of Castlebar accompanying this paper.

Draw a sketch map of the aerial photograph, half the length and half the breadth.

On it, correctly show and label each of the following:

- A lake
- **Two** connecting streets
- A carpark in the left foreground
- A sports stadium.

[20m]

##### 7B. Multinational Company

Examine how globalisation impacts on world trade with reference to the operations of **one** multi-national company which you have studied.

[30m]

##### 7C. European Union Policy

Examine the impact of European Union policy on the development of primary economic activity in Ireland.

[30m]

## Question 8

### 8A. Energy Consumption

European Union Energy Consumption (in %) by Fuel Type in Selected Years

Fuel Type	2006	2016	2021
Nuclear	15.6	14.4	14.1
Renewables and Biofuels	8.5	15.1	19.0
Oil	33.5	30.9	28.7
Natural Gas	22.9	<b>X</b>	24.6
Solid Fossil Fuels	18.5	16.2	12.1
Other	1	1.5	1.5

Amended from Eurostat

Examine the table above showing European Union (EU) energy consumption in 2006, 2016 and 2021. Answer each of the following questions.

- (i) Which fuel type was used the most in 2006?
- (ii) Name **two** fuel types that had a decrease in their percentage consumption between 2006 and 2021.
- (iii) Calculate **X**, the total energy consumption (%) of natural gas in 2016.
- (iv) Give **one** example of renewable energy.
- (v) Explain briefly **two** reasons why renewables and biofuels energy consumption has increased from 2006 to 2021.

[20m]

### 8B. Colonialism

Examine the challenges resulting from colonialism faced by a developing economy that you have studied.

[30m]

### 8C. Location of Economic Activity

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

Discuss **three** reasons why the Castlebar area is a suitable location for the development of tourism. Use evidence from the Ordnance Survey map to support each reason.

[30m]

## Question 9

### 9A. Economic Activity

New cars registered in Ireland in January

Year	Number of cars (in thousands)
2013	16
2015	28
2017	40
2019	37
2021	30
2023	25

Amended from CSO

Examine the data above showing the number of new cars registered in Ireland in January from 2013 to 2023, and answer each of the following questions.

- (i) Using graph paper, draw a suitable graph to illustrate this data.
- (ii) Explain briefly **one** reason why new car registration can be used as a good indication of economic prosperity.

[20m]

### 9B. Sustainable Development

Examine how economic activities can be developed sustainably in order to control their environmental impact.

[30m]

### 9C. Economic Activity in a Developed Economy

Examine the development of **one** of the following with reference to a developed economy that you have studied:

- Footloose industries
- Financial services
- Mass tourism.

[30m]

# PATTERNS AND PROCESSES IN THE HUMAN ENVIRONMENT

## Questions 10 to 12

### Question 10

#### 10A. Aerial Photograph

Examine the aerial photograph of Castlebar accompanying this paper.

Draw a sketch map of the aerial photograph, half the length and half the breadth.

On it, correctly show and label each of the following:

- A river
- A church
- A roundabout
- A bridge.

[20m]

#### 10B. Urban Problems

Discuss how the growth of urban centres can lead to any **two** of the following problems with reference to example(s) that you have studied:

- Traffic congestion
- Urban decay
- Urban sprawl.

[30m]

#### 10C. The Dynamics of Population

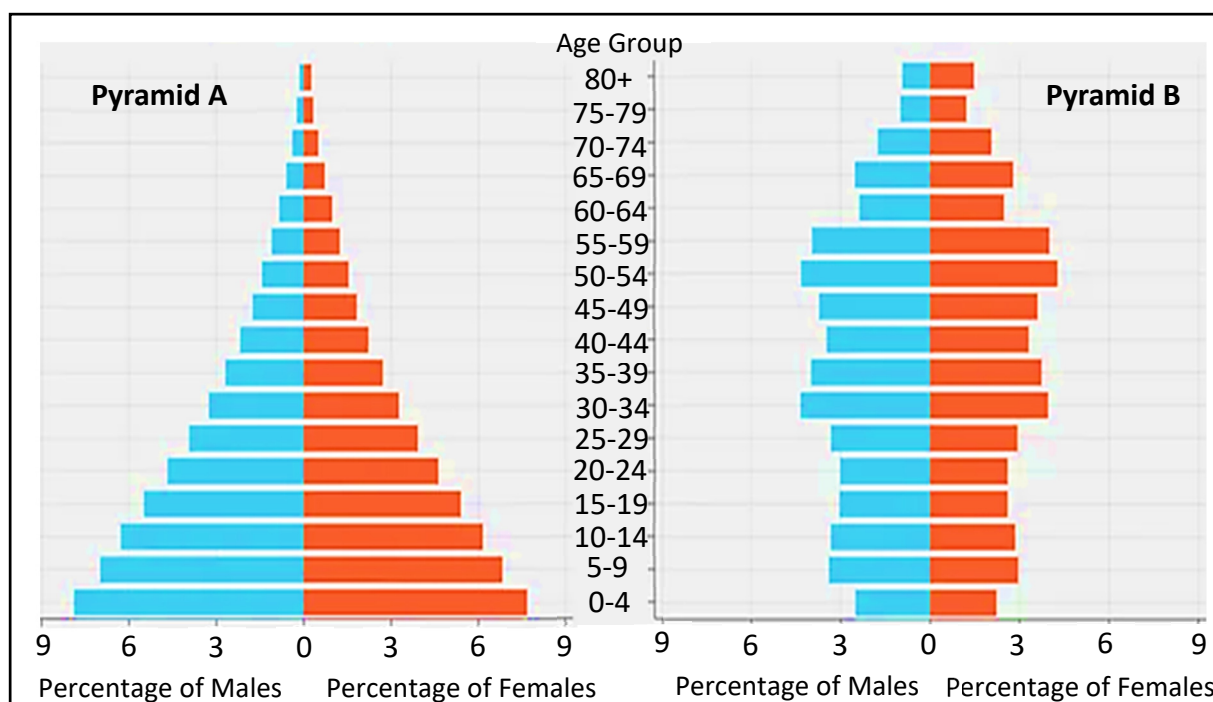
Examine the influence / impact of any **one** of the following factors on levels of population change, with references to example(s) that you have studied:

- Development of resources
- Income levels
- Society and culture.

[30m]

## Question 11

### 11A. Population Pyramids



www.reddit.com

Examine the population pyramids above and answer the questions that follow.

- Which pyramid has a higher percentage of people in the 50-54 age group?
- For Pyramid **A**, which age group has the highest percentage of the males?
- Which population pyramid has a higher death rate, Pyramid **A** or Pyramid **B**? With reference to the structure of the pyramid, give **one** piece of evidence to support your answer.
- Which of the Pyramids, **A** or **B**, represents a country from the developed world? Name **one** example of a developed country.
- Explain briefly **two** challenges facing a country with a population pyramid similar to Pyramid **A**.

[20m]

### 11B. Urban Land-Use

Examine how the location of **two** of the following land-uses has changed in an Irish city that you have studied:

- Industrial land-use
- Residential land-use
- Commercial land-use.

[30m]

### 11C. Settlement Distribution

Examine the 1:50 000 Ordnance Survey map of Castlebar accompanying this paper.

Using evidence from the map, account for variations in settlement distribution between the area north of Northing 93 and the area south of Northing 93.

[30m]

## Question 12

### 12A. Urban Population

Urban population as a percentage (%) of total population in 2020

Country	2020
Argentina	92%
Canada	82%
Ireland	66%
Indonesia	58%
Nigeria	54%
India	35%

Amended from [www.worldbank.org](http://www.worldbank.org)

Examine the data above showing urban population as a percentage of the total population in selected countries in 2020.

- (i) Using graph paper, draw a suitable graph to illustrate this data.
- (ii) Explain briefly **one** challenge facing countries with a high proportion of population living in urban areas.

[20m]

### 12B. Migration

Describe and explain changes in patterns of migration to and from Ireland since 1950.

[30m]

### 12C. Central Place Theory

Describe and explain Central Place Theory with reference to example(s) you have studied.

[30m]

## **SECTION 4**

### **OPTIONS**

#### **Questions 13 to 24**

All questions carry 80 marks.

**Note:** It is better to discuss **three** or **four** aspects of the theme in some detail, rather than to give a superficial treatment of a large number of points.

## Global Interdependence

**Note:** It is better to discuss **three** or **four** aspects of the theme in some detail, rather than to give a superficial treatment of a large number of points.

13. Examine the impact that aid can have on development. [80m]
14. Examine the causes and impacts of any **one** of the following global environmental issues:  
• Global warming  
• Deforestation  
• Desertification. [80m]
15. Sustainability is a model for future development.  
Discuss this statement with reference to **three** of the following:  
• Resource use  
• Fair trade  
• Justice issues  
• Self-reliance. [80m]

## Geocology

**Note:** It is better to discuss **three** or **four** aspects of the theme in some detail, rather than to give a superficial treatment of a large number of points.

16. Examine the influence of mineral matter, air, water, and organic matter on soil development. [80m]
17. Examine how **each** of the following activities impact on biomes:  
• The felling of tropical rainforests  
• Intensive agricultural practices  
• Industrial development. [80m]
18. Various soil patterns have developed because of the action of different soil forming processes. Discuss. [80m]

## Culture and Identity

**Note:** It is better to discuss **three** or **four** aspects of the theme in some detail, rather than to give a superficial treatment of a large number of points.

19. Examine the effects of political and/or physical boundaries on cultural groups. [80m]
20. 'Cultural identity is defined by many diverse factors'.  
Examine this statement with reference to a case study of a European region you have studied. [80m]
21. Examine the strategies that have been or could be implemented to aid the survival of minority languages. [80m]

## The Atmosphere – Ocean Environment

**Note:** It is better to discuss **three** or **four** aspects of the theme in some detail, rather than to give a superficial treatment of a large number of points.

22. Describe and account for the specific characteristics of **one** global climate type that you have studied. [80m]
23. Exchanges of water between oceans and atmosphere, over the earth's surface, impact on precipitation and its distribution patterns.  
Discuss. [80m]
24. Climate characteristics have an influence on economic development.  
Discuss this statement with reference to agriculture. [80m]

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Leaving Certificate – Higher Level

**Geography Part Two**

2 hours 50 minutes