



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Leaving Certificate Examination 2023

Geography

Part Two

Ordinary Level

Friday 9 June Morning 9:30 – 12:20

400 marks

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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.

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 100 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 on the Ordnance Survey map.

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

- The triangulation pillar at Slieve Glah
- The entire area of coniferous plantation at H 46 07
- Lisnananagh Lough
- The course of the Stradone River from Lisnananagh Lough to H 510 068
- Sweelan Lough.

[30m]

1B. Rocks

- (i) Name **two** examples of sedimentary rocks.
- (ii) State **two** different Irish locations where sedimentary rocks are found.
- (iii) Describe and explain how sedimentary rocks are formed.

[40m]

1C. Fold Mountains

With the aid of a diagram(s), describe and explain how fold mountains are formed.

[30m]

Question 2

2A. Landforms and Processes



Amended from www.bbc.co.uk

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

- (i) In your answer book, match each of the photographs **A**, **B** and **C** with the landform that best matches it from the list below:
- Sea arch
 - U-shaped valley
 - Meander.
- (ii) In your answer book, match each of the photographs **A**, **B** and **C** with the process most associated with its formation from the list below:
- Glacial erosion
 - Coastal erosion
 - River erosion and deposition.
- (iii) Explain briefly **each** of the following:
- Longshore drift
 - Plucking.

[30m]

2B. Weathering

- (i) Name any **two** factors that influence weathering.
- (ii) Describe and explain any **two** of the following types of weathering:
- Onion weathering
 - Carbonation
 - Freeze-thaw action.

[40m]

2C. Human Interaction with the Rock Cycle

Describe and explain how humans interact with the rock cycle with reference to **one** of the following:

- Quarrying
- Mining
- Oil/Gas exploitation
- Geothermal energy production.

[30m]

Question 3

3A. Earthquakes

Earthquake in Afghanistan 2022

A 6.1-magnitude earthquake struck early on Wednesday near the Pakistani border, about 160km (100 miles) southeast of Kabul, Afghanistan.

Friday's aftershock, in almost exactly the same place, was of magnitude 4.3. A total of 1,036 people are confirmed to have been killed. About 2,000 people were injured and 10,000 homes partially or entirely destroyed. The epicentre of the earthquake was in a region of arid mountains dotted with small settlements. Poor communications and only very basic roads have hampered relief efforts in a country grappling with a humanitarian crisis. Large parts of South Asia are seismically active because a tectonic plate known as the Indian plate is pushing north into the Eurasian plate.



Amended from www.irishtimes.com

Examine the article above about an earthquake in Afghanistan in 2022 and answer each of the following questions.

- (i) What was the magnitude of the earthquake in Afghanistan?
- (ii) Name the **two** tectonic plates mentioned in the article.
- (iii) List **three** effects of earthquakes referred to in the article above.
- (iv) Explain briefly the term *epicentre*.
- (v) Explain briefly **one** way to limit the damage that earthquakes can cause.

[30m]

3B. Landform Development

Answer (i) or (ii)

- (i) Explain, with the aid of diagrams, the formation of any **two** landforms.
- or**
- (ii) Describe and explain any **two** processes of mass movement.

[40m]

3C. Human Interaction with Surface Processes

Examine how humans interact with **one** of the following surface processes:

- River processes
- Coastal processes
- Mass movement processes.

[30m]

SECTION 2

REGIONAL GEOGRAPHY

Questions 4 to 6

All questions carry 100 marks.

Question 4

4A. European Region

Draw a sketch map of a **European** region (**not in Ireland**) that you have studied.

On it, **show** and **name** each of the following:

- **One** named river in this region
- **Two** named towns or cities in this region
- **One** named area of relief (upland or lowland) in this region.

[30m]

4B. Economic Activities – Irish Region

Explain the development of any **two** of the following with reference to an **Irish** region that you have studied:

- The reasons why **tourists** are attracted to the region
- The importance of **manufacturing** to the region
- The development of **transport** in the region.

[40m]

4C. Regions and Culture

The culture of a region can often be determined by the following factors:

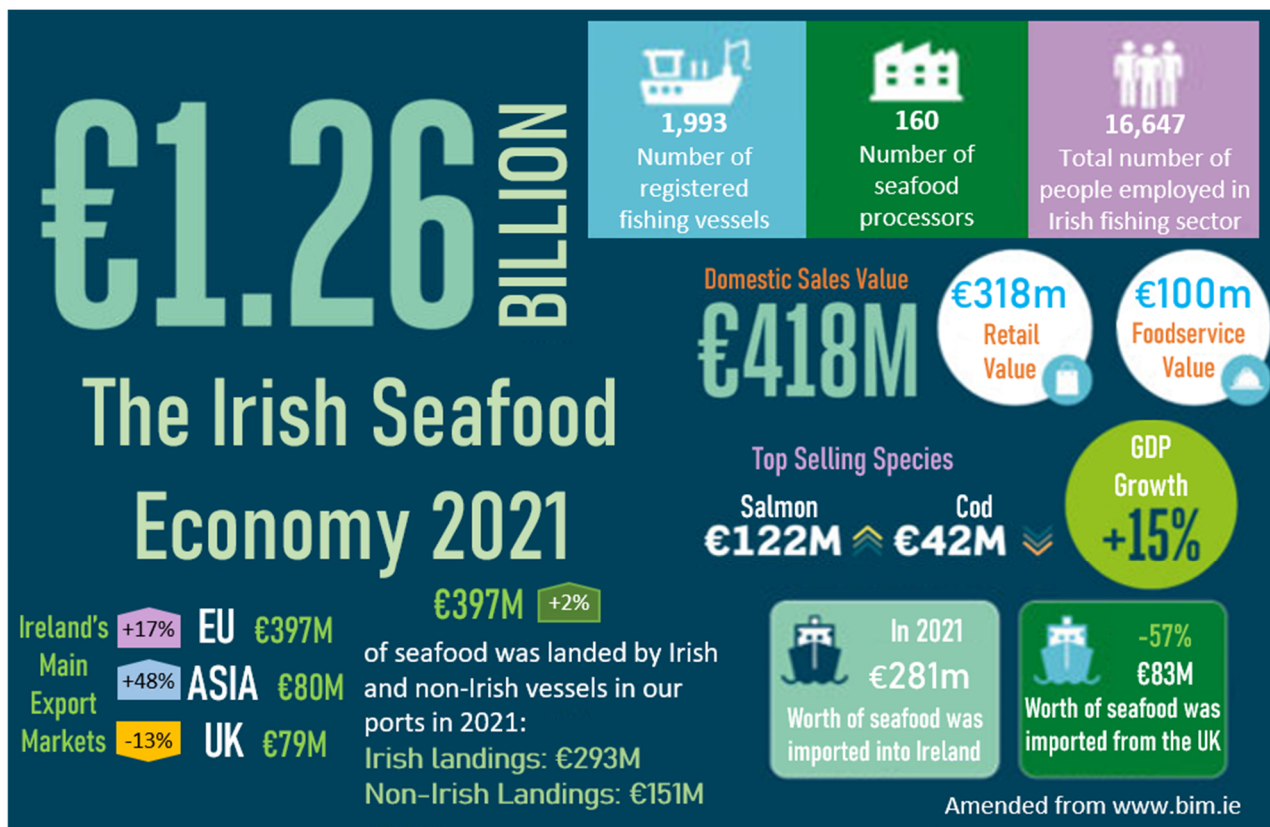
Religion	Language	Politics
Music/Dance		Sport/Games

Describe and explain the importance of culture in any **one** region that you have studied.

[30m]

Question 5

5A. Fishing in Ireland



Examine the infographic above which shows information about the Irish seafood economy in 2021 and answer each of the following questions.

- How many people were employed in the Irish fishing sector in 2021?
- What was the value (in €million) of seafood imported into Ireland in 2021?
- Calculate the combined value of the seafood exports (in € million) to the EU, Asia and the UK.
- Name the **two** top selling species of fish in Ireland in 2021.
- Name **two** fishing ports in Ireland.
- Explain briefly **one** advantage of fishing to the Irish economy.

[30m]

5B. Tourism in a European Region

Answer each of the following questions with reference to a **European** region (**not in Ireland**) that you have studied.

- Name **two** tourist attractions in this region.
- Explain the positive impacts of tourism in this region.
- Explain the negative impacts of tourism in this region.

[40m]

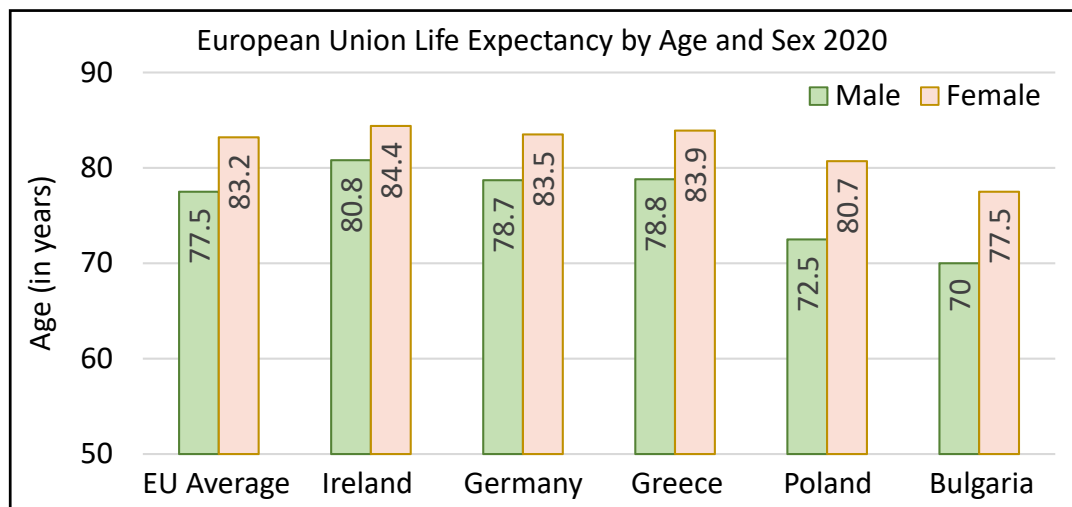
5C. Urban Growth – Continental / Sub-Continental Region

Describe and explain the reasons for the growth of an urban area in a **Continental / Sub-Continental** region (**not in Europe**) that you have studied.

[30m]

Question 6

6A. Life Expectancy in the European Union



Amended from www.ec.europa.eu

Examine the chart above with information on life expectancy in selected countries of the European Union (EU) in 2020 and answer each of the following questions.

- In which country was the female life expectancy 83.5 years in 2020?
- In which country was male life expectancy the highest in 2020?
- Name **two** countries whose female life expectancy is below the EU Average for females.
- Calculate the difference in life expectancy for males, in years, between Bulgaria and the EU Average.
- Explain briefly **two** reasons why some countries have higher life expectancies than other countries.

[30m]

6B. Primary Economic Activity in a Continental / Sub-Continental Region

Answer each of the following questions with reference to a **Continental / Sub-Continental** region (**not in Europe**) that you have studied.

- Name **one** primary economic activity that contributes to the economy of this region.
- Explain the advantages that this region has for the development of the primary economic activity named in part (i) above.
- Describe **one** problem faced by this primary economic activity in this region.

[40m]

6C. Regional Development

Describe and explain **two** problems faced by any region 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 100 marks.

PATTERNS AND PROCESSES IN ECONOMIC ACTIVITIES

Questions 7 to 9

Question 7

7A. Aerial Photograph

Examine the aerial photograph of Cavan accompanying this paper.

Draw a sketch map of the area shown on the aerial photograph.

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

- A lake
- A church
- An area of waste ground in the centre foreground
- A car park
- **Two** connecting streets.

[30m]

7B. Economic Activity – Environmental Pollution

- (i) Name **one** example of environmental pollution caused by economic activity.
- (ii) Explain the causes **and** effects of this environmental pollution.
- (iii) Describe how this environmental pollution could be reduced.

[40m]

7C. Colonialism

- (i) Name **one** developing economy that was colonised.
- (ii) Describe and explain the impacts of colonialism on this developing economy.

[30m]

Question 8

8A. Economic Development

Expected Years of Schooling for
Selected Countries 2019

Country	Expected Years of Schooling
Ireland	19
Brazil	15
Mali	8
Saudi Arabia	16
Japan	15

Amended from www.hdr.unp.org

Examine the table above showing the expected years of schooling for selected countries in 2019 and answer each of the following questions.

- (i) Using graph paper, draw a suitable graph to illustrate this data.
- (ii) In your answer book, explain briefly **one** way that an educated workforce benefits the economy of a country.

[30m]

8B. Ordnance Survey Map

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

Imagine you have been given the task of finding a suitable location for a new factory within the area covered by the map.

- (i) State, using a six-figure grid reference, where you would locate the factory.
- (ii) Explain the reasons why you chose this location.
- (iii) Describe **one** disadvantage of locating the factory at this location.

[40m]

8C. Ireland and the European Union

Explain how being a member of the European Union has impacted on the Irish economy.

[30m]

Question 9

9A. Renewable Energy

Ireland's First Large-Scale Solar Farm Opens in Wicklow

The first large-scale solar farm to supply electricity to the Irish grid has been opened near Ashford in Co. Wicklow and is now operational.

Millvale solar farm incorporates 33,600 solar modules covering 25 hectares of land. That is enough to power approximately 3,600 homes every year. It is estimated that the electricity it generates will prevent 4,800 tonnes of greenhouse gas emissions each year.

Eamon Ryan, the Minister for the Environment, Climate and Communications, said:
"It supports the growth of the green economy, creates sustainable work opportunities and benefits citizens, as renewable energy becomes more cost effective and replaces fossil fuels".



Amended from www.rte.ie/news

Examine the article above about the opening of a solar farm and answer each of the following questions.

- (i) In which county is this solar farm located?
- (ii) What is the area of land (in hectares) of Millvale solar farm?
- (iii) How many tonnes of greenhouse gas emissions is it estimated this solar farm will prevent from being released into the atmosphere each year?
- (iv) Name **two** benefits of this solar farm that were stated in the article by Eamon Ryan.
- (v) Name **one** example of renewable energy, apart from solar power.
- (vi) Explain briefly what is meant by the term *fossil fuels*.
- (vii) Explain briefly **one** disadvantage of renewable energy.

[30m]

9B. Multinational Company

- (i) Name **one** multinational company located in Ireland that you have studied **and** name **one** product that it manufactures.
- (ii) State where this multinational company is located in Ireland **and** explain why it set up at this location.
- (iii) Explain **one** reason why this multinational company might decide to locate to another country.

[40m]

9C. Economic Development – Developed Economy

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

- Tourism
- Financial services
- Service and footloose industries.

[30m]

PATTERNS AND PROCESSES IN THE HUMAN ENVIRONMENT

Questions 10 to 12

Question 10

10A. Aerial Photograph

Examine the aerial photograph of Cavan accompanying this paper.

Draw a sketch map of the area shown on the aerial photograph.

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

- A lake
- A church
- Tennis courts
- A roundabout
- Industrial buildings in the left background.

[30m]

10B. Migration – Ireland

Migration takes place due to push factors and pull factors.

- Name **one** push factor **and one** pull factor associated with migration.
- Discuss the positive impacts of migration on Ireland.
- Discuss the negative impacts of migration on Ireland.

[40m]

10C. Traffic Congestion

- Name **one** example of an urban area where traffic congestion is a problem.
- Describe and explain the measures that can be taken in urban areas to solve the problem of traffic congestion.

[30m]

Question 11

11A. Population Dynamics

Population Increase (%) in
Selected Irish Counties 2016-2022

County	Population Increase (%)
Kilkenny	5
Dublin	8
Kildare	11
Meath	13
Longford	14

Amended from www.cso.ie

Examine the table above showing the population increase (%) in selected Irish counties 2016-2022 and answer each of the following questions.

- Using graph paper, draw a suitable graph to illustrate this data.
- In your answer book, explain briefly **one** challenge associated with an increase in population.

[30m]

11B. Rural Settlement Patterns

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

- Name **three** different rural settlement patterns evident on the Ordnance Survey map **and** give a six-figure grid reference for the location of an example of each.
- Explain each of the **three** rural settlement patterns named in part (i) above.

[40m]

11C. Urban Sprawl

- Name **one** city where urban sprawl has occurred.
- Explain the reasons why urban sprawl has occurred in this city.
- Describe **one** solution to urban sprawl.

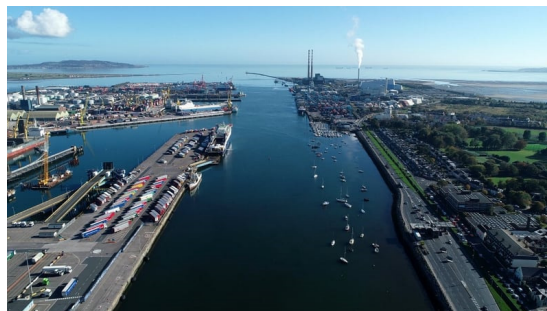
[30m]

Question 12

12A. Changing Landuse Patterns

Development of Dublin Port

In February 2022, the *Docklands Business Forum* submitted a proposal to Dublin City Council for its 2022-2028 draft development plan calling for the relocation of the Port outside the city. They argued that the 200 hectares of land currently occupied by the port could be better and more profitably used for housing and business developments.



The proposal was rejected immediately by Dublin City Council, who claimed that it would violate EU environmental law. However, it would be foolish to think that this will be the last time that businesses fix their eye on the port for redevelopment. With the continued housing crisis in Dublin and the difficulty in finding office space, the area around Dublin Port has been seen as an attractive site for expansion.

Amended from www.rte.ie

Examine the article above about Dublin Port and answer each of the following questions.

- (i) Who submitted a proposal calling for the relocation of Dublin Port?
- (ii) In what month during 2022 was this proposal submitted?
- (iii) How much land (in hectares) does Dublin Port currently occupy?
- (iv) Why did Dublin City Council reject the proposal?
- (v) State **two** reasons, mentioned in the article, why Dublin Port will continue to be an attractive site for expansion.
- (vi) Explain briefly what is meant by the term *urban redevelopment*.
- (vii) Explain briefly **one** reason why towns/cities develop near ports.

[30m]

12B. Developing World City

- (i) Name **one** city in the developing world that is growing rapidly.
- (ii) State **three** factors that influence the growth of this developing world city.
- (iii) Describe and explain any **three** problems associated with the rapid growth of this developing world city.

[40m]

12C. Overpopulation

- (i) Explain briefly what is meant by the term *overpopulation*.
- (ii) Describe and explain the causes **and** effects of overpopulation with reference to example(s) that you have studied.

[30m]

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