



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Leaving Certificate Examination 2022

Geography

Part Two

Ordinary Level

Friday 10 June

Morning 9:30 – 12:20

300 marks

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PART TWO – STRUCTURED QUESTIONS – 200 MARKS

You must attempt **TWO** questions. Each question must be from a different section.

- 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)

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 River Suir
- The triangulation pillar at Lachtnafrankee
- A viewpoint
- The railway line
- An area of coniferous plantation in the south west of the map.

[30m]

1B. 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]

1C. Plate Tectonics

(i) Name **one** example of a tectonic plate.

(ii) Describe and explain what happens at plate boundaries.

[30m]

Question 2

2A. Mass Movement

Bogburst in Donegal

A bogburst in Co. Donegal is being classed as a 'serious pollution event' after hundreds of thousands of tonnes of peat and forestry crashed down a hillside polluting a local river.

Authorities are working to discover the cause of the bogburst at an area near Ballybofey. Local residents said they believed recent construction activity at the nearby Meenbog Windfarm played a significant role in triggering the mass movement event.

Meenbog Windfarm is owned by Invis Energy and is working with global retail firm Amazon, to supply energy to their worldwide data centres.



Aftermath of the bogburst near Ballybofey, Co. Donegal

Amended from www.irishindependent.ie

Examine the article above about a bogburst and answer each of the following questions.

- (i) In what county did the bogburst take place?
- (ii) What did local residents believe was the cause of the bogburst?
- (iii) Name **one** impact of the bogburst mentioned in the article.
- (iv) What is the energy generated at the windfarm being used for?
- (v) In your answerbook, state whether each the following types of mass movement processes are fast **or** slow.
 - Avalanche
 - Soil creep
 - Mudflow
 - Rockfall.
- (vi) Explain briefly **one** factor that influences mass movement, other than human activity.

[30m]

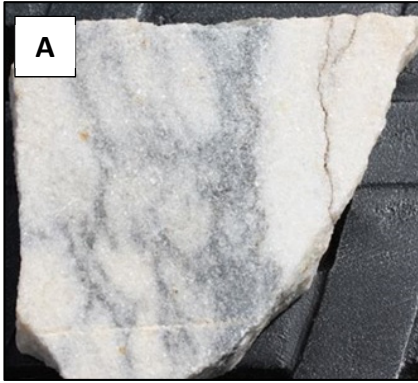
2B. Human Interaction with Surface Processes

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

- River processes
- Coastal processes
- Mass movement.

[30m]

2C. Rocks



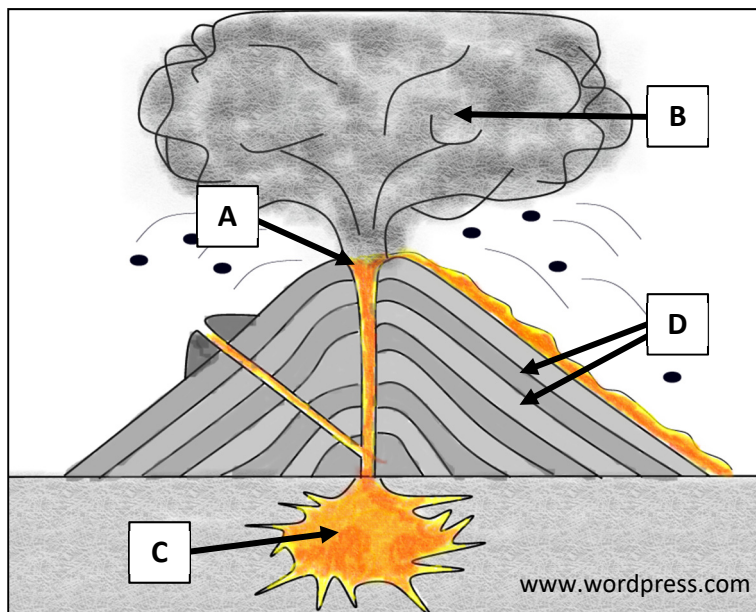
www.quarriesandbeyond.org, www.collinsdictionary.com and www.flickr.com

- (i) In your answer book, match each of the photographs **A**, **B** and **C** with the rock that best matches it from the list below:
- Sandstone
 - Limestone
 - Marble.
- (ii) State **two** ways in which rocks are used.
- (iii) Name **one** igneous rock **and** give a location where it can be found.
- (iv) Describe and explain how igneous rocks are formed.

[40m]

Question 3

3A. Volcanic Activity



Examine the diagram above showing a volcanic eruption and answer each of the following questions.

- (i) In your answer book use each of the terms in the list below to name the features labelled **A**, **B**, **C** and **D** on the diagram above.
 - Magma chamber
 - Crater
 - Layers of ash and rock
 - Ash cloud.
- (ii) State if the volcano shown above is active, dormant **or** extinct.
- (iii) Name **one** example of a volcano that you have studied.
- (iv) List **two** positive effects of volcanoes.
- (v) Explain briefly **one** negative effect of volcanoes.

[30m]

3B. 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]

3C. 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]

SECTION 2

REGIONAL GEOGRAPHY

Questions 4 to 6

All questions carry 100 marks.

Question 4

4A. Map Skills

Draw a sketch map of a **Continental / Sub-Continental** region (**not in Europe**) that you have studied.

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

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

[30m]

4B. Agriculture – Irish Region

Answer each of the following questions with reference to an **Irish** region that you have studied.

- Name **two** types of agriculture practised in this region.
- Explain the advantages that this region has for the development of agriculture.
- Describe **one** challenge faced by agriculture in this region.

[40m]

4C. Secondary Economic Activity in a European Region

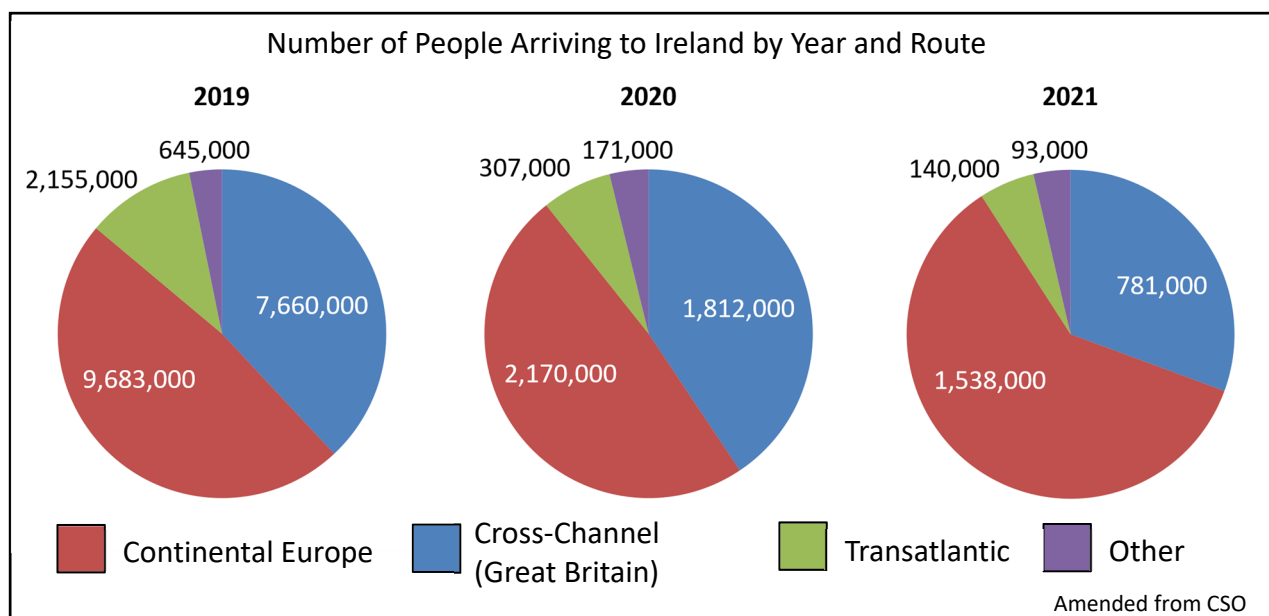
Answer each of the following questions with reference to a **European** region (**not in Ireland**) that you have studied.

- Name **one** example of a secondary economic activity in this region.
- Describe and explain the development of manufacturing industry in this region.

[30m]

Question 5

5A. Tertiary Economic Activity



Examine the pie charts above which show the number of people arriving to Ireland by year and route in 2019, 2020 and 2021. Answer each of the following questions.

- How many people travelled to Ireland by a transatlantic route in 2019?
- In which year did 2,170,000 people travel to Ireland from continental Europe?
- Which route was used by 781,000 people to travel to Ireland in 2021?
- Calculate the total number of people travelling to Ireland in 2021.
- Name **one** airport or seaport in Ireland.
- Explain briefly **one** reason why the number of arrivals into Ireland was lower in 2020 and 2021 than in 2019.
- Explain **one** challenge caused by less tourists visiting Ireland.

[30m]

5B. Economic Activities – Continental / Sub-Continental Region

Explain any **two** of the following with reference to a **Continental / Sub-Continental** region (**not in Europe**) that you have studied:

- The factors influencing **agriculture** in the region
- The importance of **manufacturing** to the region
- The reasons why **tourists** are attracted to the region.

[40m]

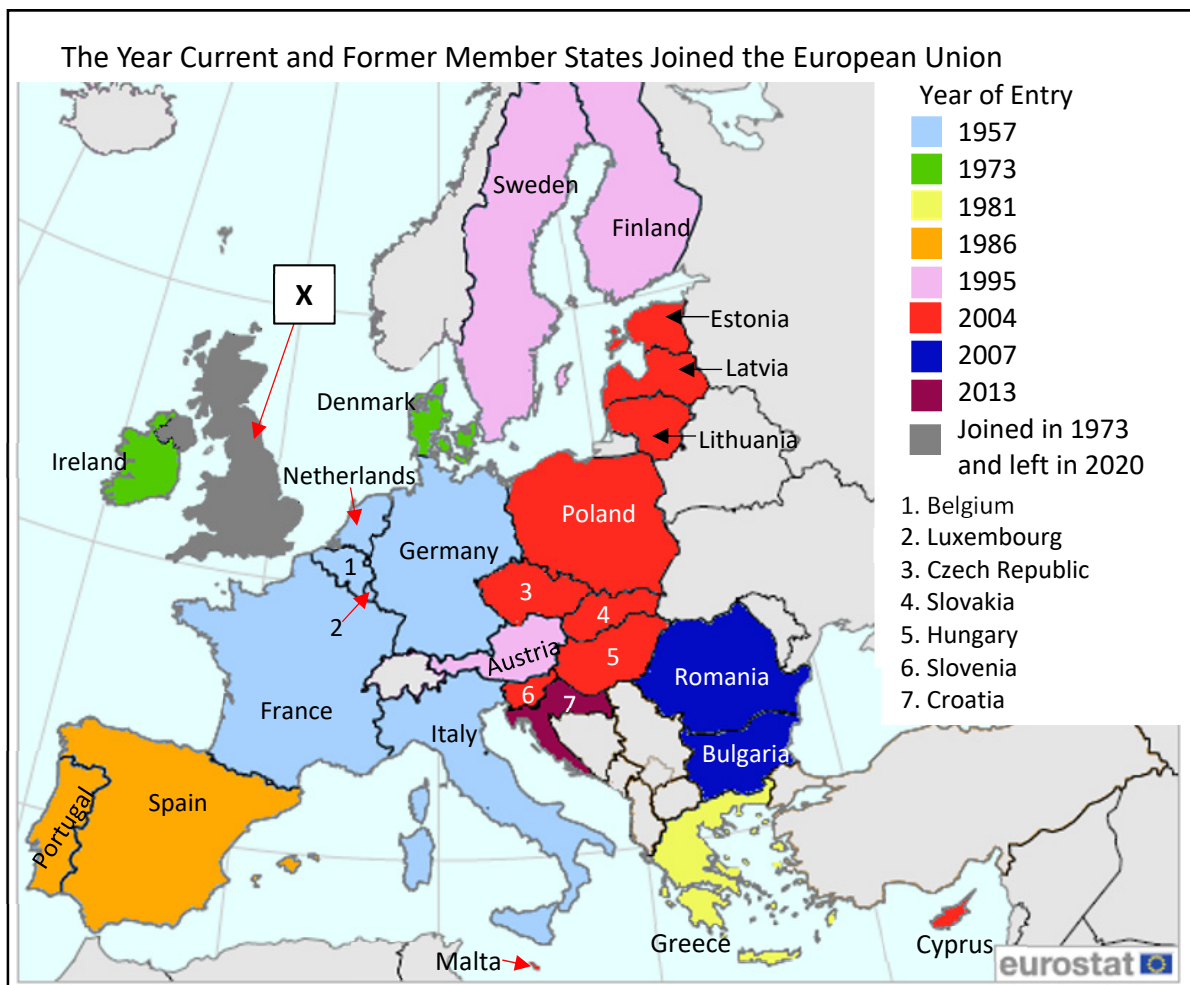
5C. Characteristics of Regions

- Name **one** example of a core region **and** explain why this region is a core region.
- Name **one** example of a peripheral region **and** explain why this region is a peripheral region.

[30m]

Question 6

6A. European Union



Examine the map above showing the year current and former member states joined the European Union and answer the following questions.

- In what year did Portugal join the European Union?
- How many countries joined the European Union in 1995?
- Which country joined the European Union the same year as Romania?
- Name **two** countries that joined the European Union in 2004.
- Explain briefly **one** advantage of membership of the European Union.
- Which country, labelled **X** on the map, left the European Union in 2020?
- Explain briefly **one** challenge facing member states of the European Union.

[30m]

6B. Urban Regions

Describe and explain the reasons for the growth of any **one** urban area that you have studied.

[30m]

6C. Tourism in an Irish Region

Answer each of the following questions with reference to an **Irish** region that you have studied.

- (i) Name **two** tourist attractions in this region.
- (ii) Explain the reasons why tourists are attracted to this region.
- (iii) Describe **one** problem associated with tourism in this region.

[40m]

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 Clonmel accompanying this paper.

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

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

- The river
- A bridge
- **Two** connecting streets
- A car park in the right middleground
- An industrial building in the centre foreground.

[30m]

7B. Fossil Fuels

- (i) Name **two** fossil fuels.
- (ii) Describe and explain the impact of burning fossil fuels on the environment.

[30m]

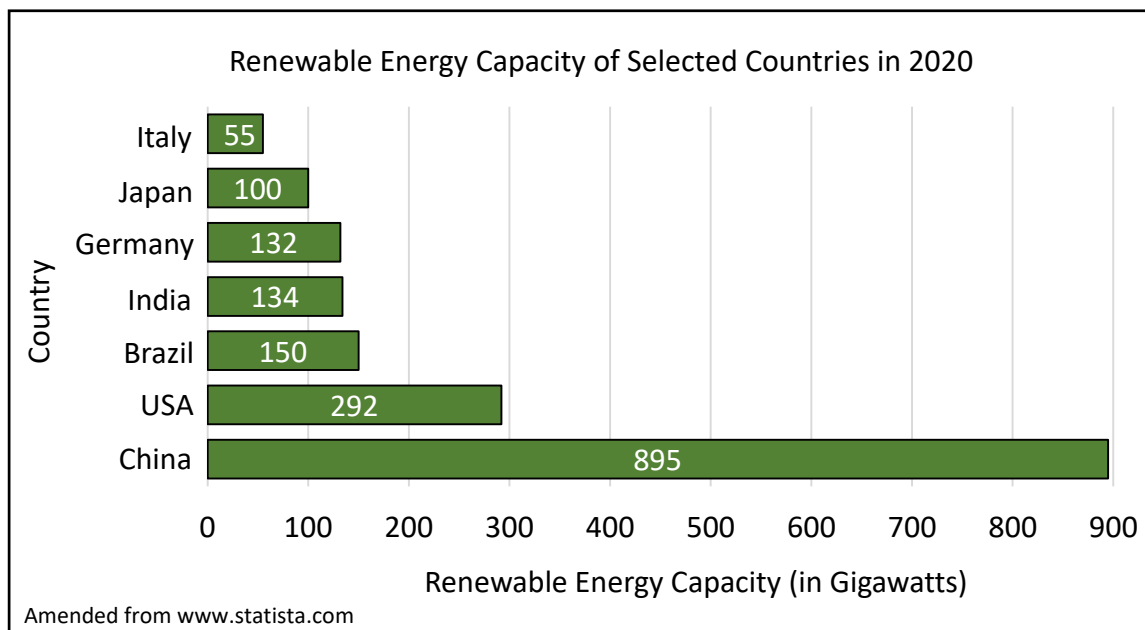
7C. Developed Economy

- (i) Name **one** developed economy where tourism **or** financial services contribute to that economy.
- (ii) Explain the reasons for the growth of tourism **or** financial services in the developed economy named in part (i) above.
- (iii) Explain **one** benefit that tourism **or** financial services bring to the economy of developed countries.
- (iv) Explain **one** problem caused by tourism **or** financial services.

[40m]

Question 8

8A. Renewable Energy



Examine the bar chart above showing the renewable energy capacity of selected countries in 2020 and answer each of the following questions.

- (i) What was the renewable energy capacity, in gigawatts, for India in 2020?
- (ii) Which country from the chart above had the largest renewable energy capacity in 2020?
- (iii) Calculate the total renewable energy capacity, in gigawatts, for China, the USA and Brazil combined.
- (iv) Name **two** sources of renewable energy.
- (v) Briefly explain **two** reasons why countries are investing more in renewable energy.

[30m]

8B. Economic Activity and Conflict

- (i) Name **one** example of how the development of economic activities has resulted in conflict arising between people.
- (ii) Describe and explain this conflict.

[30m]

8C. Economic Activity – 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 large hotel within the area covered by the map.

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

[40m]

Question 9

9A. Economic Development

Gross National Product (GNP)
for Selected Countries in 2020

Country	GNP (\$US trillion)
USA	20
China	13
Japan	5
Germany	4
UK	3

Amended from www.worldpopulationreview.com

Examine the table above showing the gross national product (GNP) for selected countries in 2020. 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** advantage of a country having a high gross national product.

[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. Ireland and the European Union

- (i) Name any **one** European Union policy which affects Ireland's economy.
- (ii) Describe and explain the effects of this policy on Ireland's economy.

[30m]

PATTERNS AND PROCESSES IN THE HUMAN ENVIRONMENT

Questions 10 to 12

Question 10

10A. Traffic Congestion

Traffic Congestion Levels
for a Number of European Cities 2020

European City	Traffic Congestion Level
Dublin	38%
London	31%
Lisbon	23%
Copenhagen	18%
Madrid	15%

Amended from www.tomtom.com

Examine the table above showing the traffic congestion level for a number of European cities in 2020. 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** reason why Dublin experiences high levels of traffic congestion.

[30m]

10B. Migration – Ireland

- (i) Describe and explain the reasons why people in Ireland migrate from rural areas to cities, using examples you have studied.
- (ii) Explain **one** effect rural to urban migration has on rural areas.
- (iii) Explain **one** barrier to migration.

[40m]

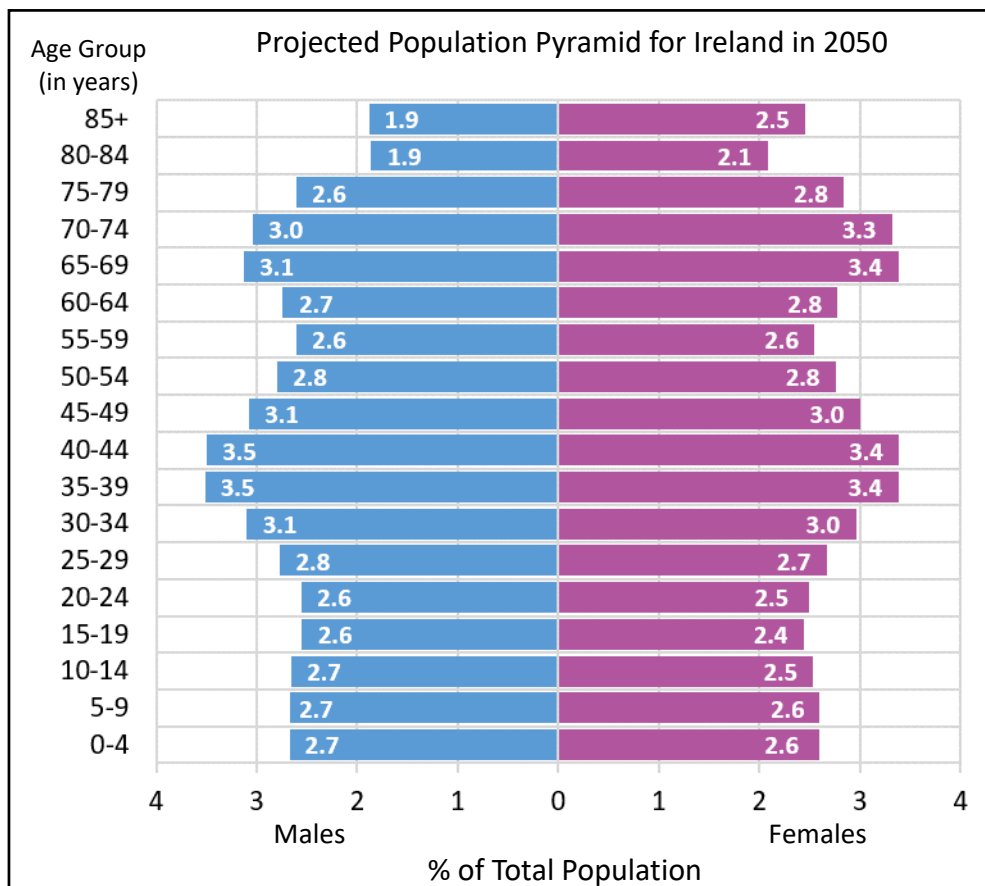
10C. Development of Towns

Using evidence from the aerial photograph accompanying this paper, explain **three** reasons why the town of Clonmel developed at its present location.

[30m]

Question 11

11A. Population Dynamics



Amended from www.populationpyramid.net

Examine the population pyramid above showing the projected population structure for Ireland in 2050. Answer each of the following questions.

- What percentage of females are projected to be aged 20-24?
- Is there projected to be more males or females aged 85+?
- What percentage of the total population in the 0-4 age group is projected to be male?
- Calculate the percentage of the total population that is projected to be aged 65-69.
- State **one** way that population pyramids are used.
- Explain briefly **one** reason why people in Ireland have a long life expectancy.
- Explain briefly **one** way the shape of a population pyramid for a developed country differs from the shape of a population pyramid for a developing country.

[30m]

11B. Developing World City

- (i) Name **one** city in the developing world that is growing rapidly.
- (ii) Explain **one** reason for the rapid growth of the city named by you in part (i) above.
- (iii) Describe and explain any **three** problems associated with the rapid growth of this developing world city.

[40m]

11C. Historic Settlement

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

- (i) Name **and** give a six-figure grid reference for the location of **three** different examples of historic settlement evident on the Ordnance Survey map.
- (ii) Describe each of the three historic settlements named in part (i) above.

[30m]

Question 12

12A. Aerial Photograph

Examine the aerial photograph of Clonmel accompanying this paper.

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

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

- The river
- A bridge
- A recreational area
- A church in the right foreground
- An area of terraced housing in the centre foreground.

[30m]

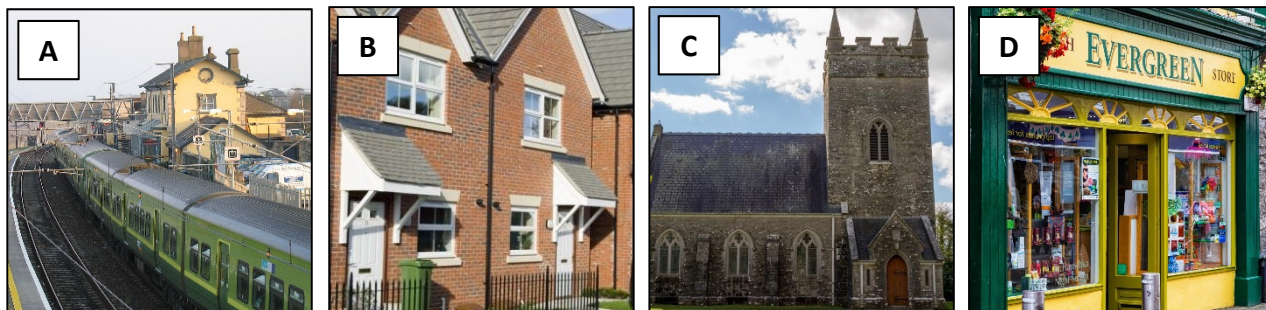
12B. Population Dynamics

‘Population change is influenced by many factors including income levels, culture and society and medical technology.’

Describe and explain the factors that influence population change.

[30m]

12C. Urban functions



Amended from www.en.wikipedia.org, www.joe.ie, www.discoverboynevalley.ie, www.forecourtretailer.com

- (i) Examine the photographs of different buildings labelled **A**, **B**, **C** and **D** shown above and match each of the letters on the photograph with the urban function listed below that best matches it.

Write your answer in your answer book.

- Residential
- Commercial
- Transport
- Religious.

- (ii) ‘The functions of urban areas change over time.’

Discuss this statement with reference to any urban area studied by you.

[40m]

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