



**Coimisiún na Scrúduithe Stáit
State Examinations Commission**

2007. M23

LEAVING CERTIFICATE EXAMINATION, 2007

GEOGRAPHY – ORDINARY LEVEL

MONDAY, 11 JUNE – AFTERNOON, 1.30 TO 4.20

Examination Number

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For the Examiner's Use Only

Part One Short Questions	Total Marks
Question 1	
Question 2	
Question 3	
Question 4	
Question 5	
Question 6	
Question 7	
Question 8	
Question 9	
Question 10	
Question 11	
Question 12	
Accumulated Marks	
Disallowed Marks	
Net Mark	

<p>N.B. Remember to return this paper with your answer-book. Otherwise, marks will be lost</p>

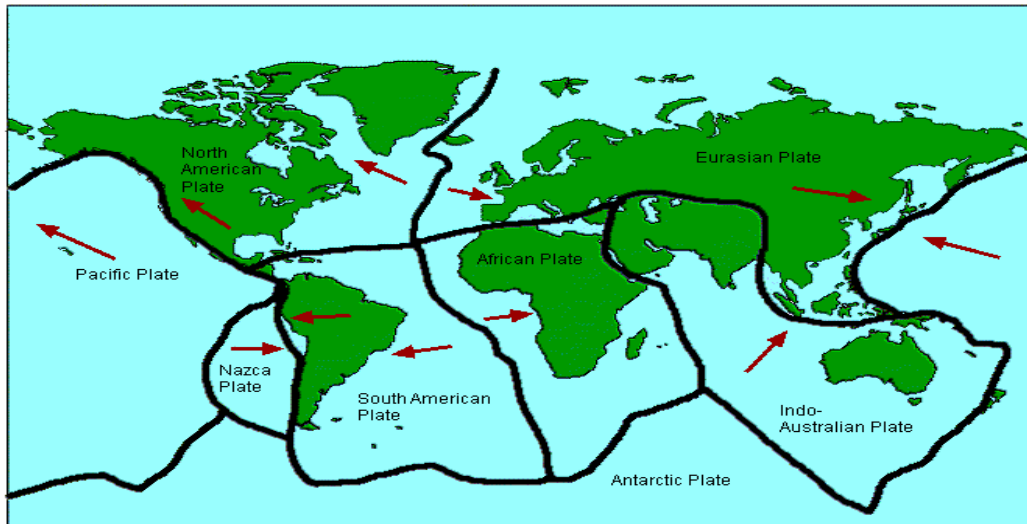
PART ONE – SHORT-ANSWER QUESTIONS – 100 MARKS

Attempt TEN questions

All questions carry equal marks

THESE QUESTIONS TO BE ANSWERED IN THE SPACES PROVIDED

1. Plate Tectonics



Examine the map above which shows the world's plate margins.

- (i) Name **two plates** which are converging (coming together):

Plate A _____

Plate B _____

- (ii) Name **two plates** which are diverging (pulling apart):

Plate A _____

Plate B _____

- (iii) Read the statement below and place an **X** in the correct box.

“**Mid-Ocean Ridges** are formed at the edges of diverging plates (pulling apart).”

a. True

b. False

[10]

2. Karst Regions



Examine the photograph shown above.

- (i) Which of the following rocks is found in the area in the photograph above: **Granite or Basalt or Limestone?** Write the correct name in the box below.

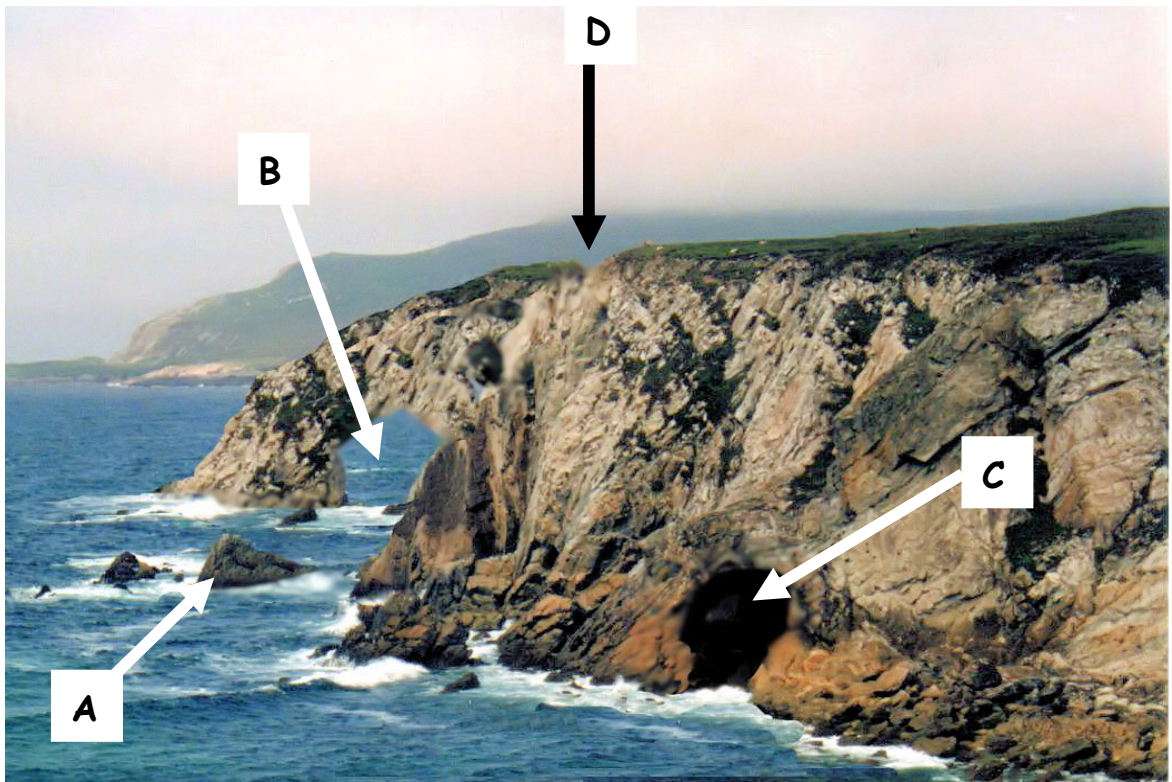
- (ii) Give the name of a place in Ireland where the rock named in the answer to Part (i) can be found.

- (iii) Link the **landform (letter)** with the correct **location (number)** in the box provided. One is completed for you.

	Landform	Location		Letter	Number
A	Clints and Grikes	Underground	1		
B	Cave	Surface	2		
C	Stalactite	Surface	3		
D	Limestone Pavement	Underground	4	D	3

[10]

3. Marine Processes



- (i) Examine the photograph above and then pair each of the **landforms** in the table below with the correct **letter** in the diagram.

Landform	Letter
Sea Arch	
Sea Cave	
Sea Stack/Stump	
Blow Hole	

- (ii) Read the statement below and place an **X** in the correct box.

“All the landforms in the photograph above were formed by **marine deposition**”

a. False

b. True

[10]

4. European Regions

Link the **Region Type (letter)** with an **Example in Europe (number)** in the box provided. One is completed for you.

	Region Type	Example in Europe		Letter	Number
A	Climatic	Irish Gaeltacht	1		
B	Cultural	The Alps	2		
C	Core	The Paris Basin	3		
D	Mountain	Mediterranean	4	A	4

[10]

5. Ordnance Survey Map

Examine the Ordnance Survey map accompanying this paper. Calculate the distance along the railway line from the railway station in Laytown at O163714 to the railway station in Drogheda at O099748.

Write the correct distance in the box below:

OR

Examine the Ordnance Survey map accompanying this paper. Calculate (in square kilometres) the area of the entire map extract.

Write the correct area in the box below:

[10]

6. Aerial Photograph

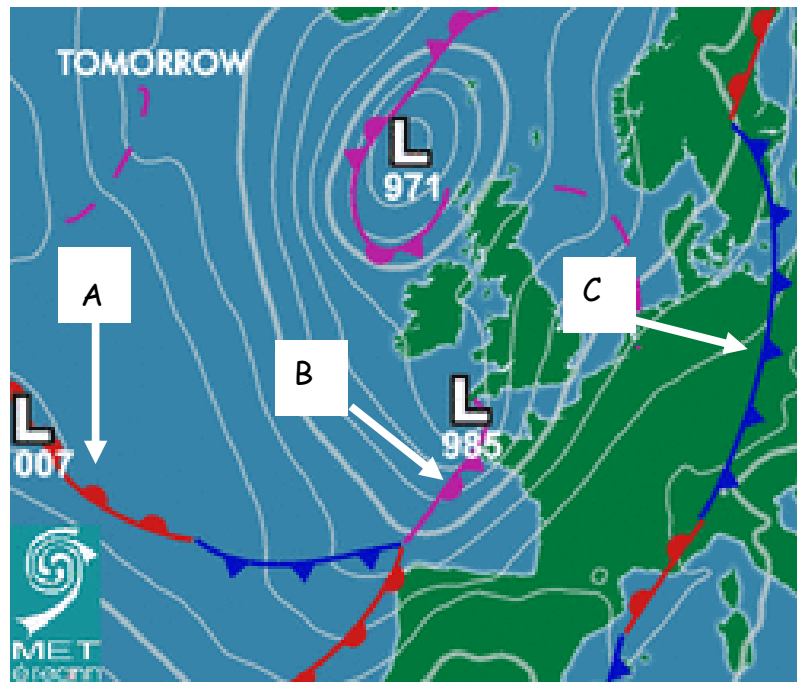
Examine the aerial photograph of Drogheda that accompanies this paper.

- (i) Is the photograph **vertical or oblique**? _____
- (ii) Using the normal **notation** (e.g. Right Background etc...) give the location of:
A Church: _____
A Housing Estate: _____
- (iii) At what **season** of the year was this photograph taken? Write your answer in the box below:

State **one** piece of evidence for your choice of season:

[10]

7. Weather Charts



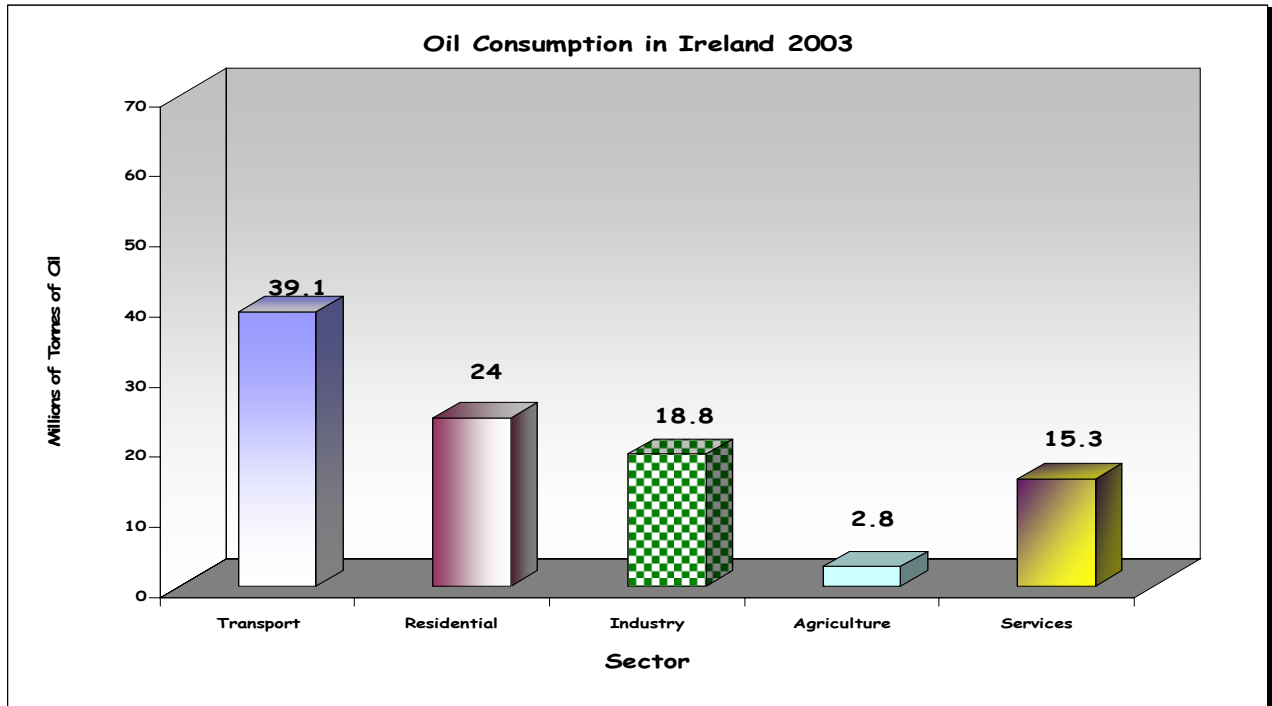
- (i) The weather chart shows a warm front, a cold front and an occluded front. Complete the box below by filling in the correct letter.

Type of Front	Letter
Warm Front	
Cold Front	
Occluded Front	

- (ii) Weather maps such as this can be very useful to people in particular jobs or occupations. Name **two examples** of such jobs in the boxes below:

[10]

8. Energy Consumption in Ireland



The above chart shows the amount of oil consumed (used) in Ireland by sector in 2003.

- (a) Identify the **sector** with the highest oil consumption and write the **name** in the space provided.

- (b) How many million tonnes of oil did the following sectors use in 2003? Write the answers in the boxes below.

Agriculture

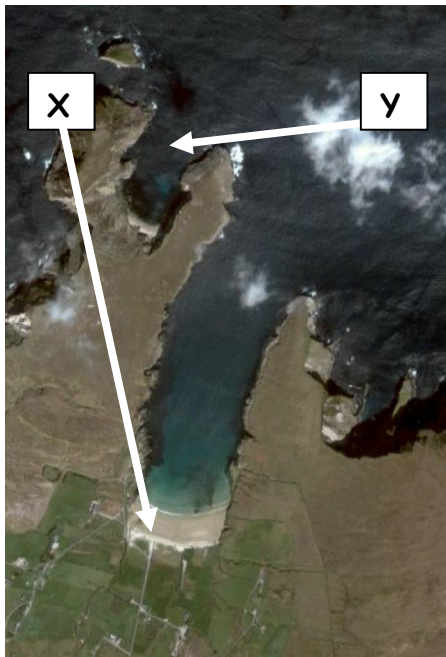
Residential

Services

- (c) Name **ONE** type of damage that using large amounts of oil can do to the environment.

[10]

9. **Physical Features on Maps and Photographs**



Study the map and photograph extracts below and answer the questions.

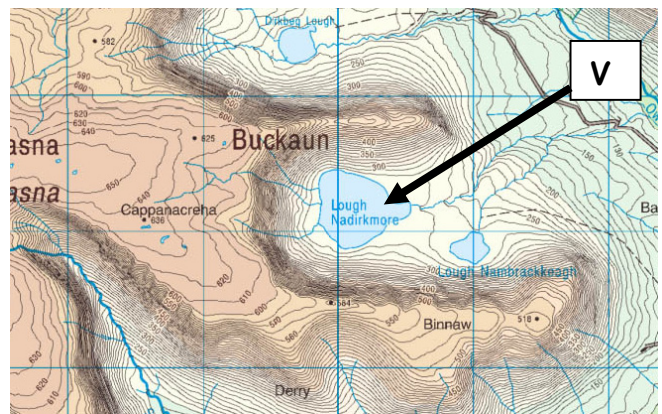
(i) What **NAME** is given to the feature of deposition marked **X** on the photograph on the left. Write the name in the box below.

(ii) What **NAME** is given to the feature of erosion marked **Y** on the photograph on the left. Write the name in the box below.

(iii) Which of the following **glacial features** is present at **V** on this extract from an Ordnance Survey Map?

Corrie/Cirque or Arête or Pyramidal Peak

Write the correct one in the box below.



(iv) Read the statement below and place an **X** in the correct box.

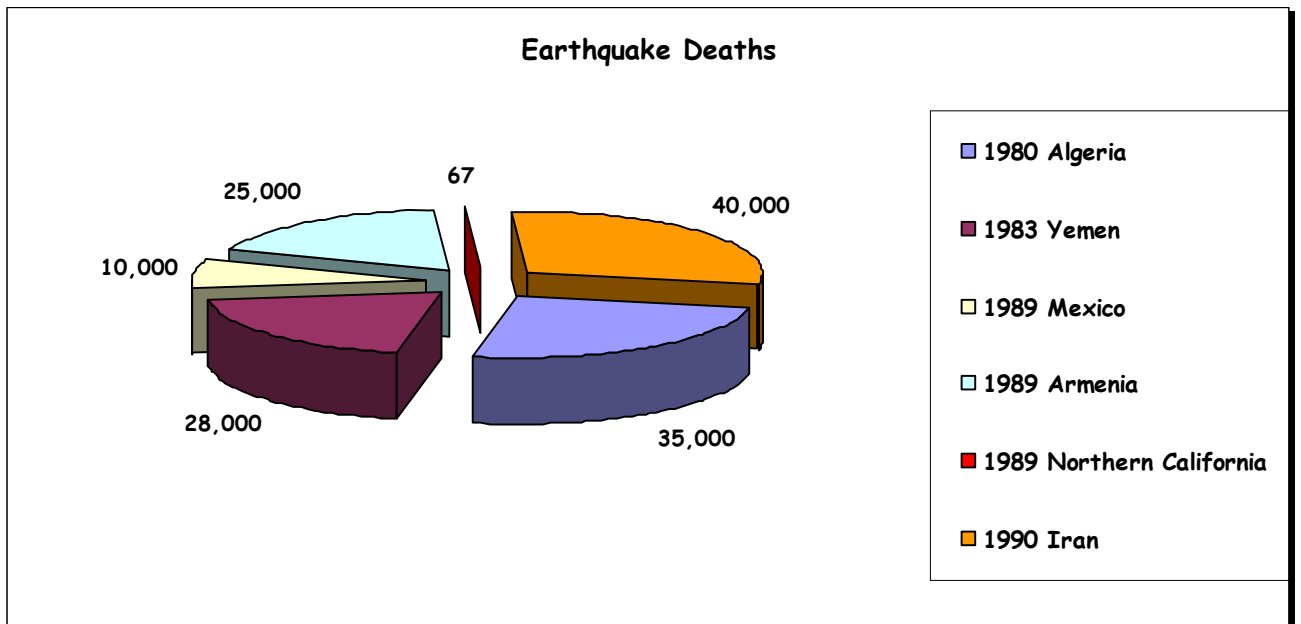
“The river in the photograph on the left is in the upper course and eroding.”

True

False

[10]

10. Earthquakes



- (i) Name the **year and country/region** with the largest number of earthquake deaths. Write your answers in the boxes below.

Year	
------	--

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Country/Region

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- (ii) Name **the year and country/region** which had 10,000 earthquake deaths. Write your answers in the boxes below.

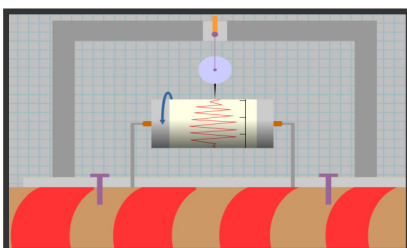
Year

--

Country/Region

--

- (iii) Name this instrument which measures the strength of earthquakes. Write your answer in the box below.



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[10]

11. Ireland's Climate

(i) Which of the following names best describes the Irish Climate? Place an **X** in the correct box.

• Mediterranean Climate

• Cool Temperate Oceanic Climate

• Continental Climate

(ii) Read the statement below and place an **X** in the correct box.
“The North Atlantic Drift keeps Ireland warm in winter.”

True

False

(iii)



State in the spaces provided below **two** advantages Ireland's climate has for the production of wind energy.

Advantage 1 _____

Advantage 2 _____

[10]

12. Landforms

The following features are the result of action by **ice, rivers or the sea**. In the case of **each feature** listed state which of the agents (**ice, rivers, or the sea**) formed it. One has been completed for you.

FEATURE	FORMED BY
Meander	_____
Arête	_____
Tombolo	_____
Plunge Pool	_____ <u>River</u> _____
Drumlin	_____
Sea/Sand Spit	_____

[10]

PART TWO – STRUCTURED QUESTIONS – 300 MARKS

Candidates must attempt **THREE** questions, as follows:

- **Two** questions from Section 1 [Questions 1 to 6]
- **One** question from Section 2 [Questions 7 to 12]

THESE QUESTIONS TO BE ANSWERED IN THE ANSWERBOOK

SECTION 1 - CORE

You **MUST** attempt **TWO** questions:

ONE from **Patterns and Processes in the Physical Environment**
AND

ONE from **Regional Geography**

PATTERNS AND PROCESSES IN THE PHYSICAL ENVIRONMENT

Attempt ONE question

Question 1

A. ORDNANCE SURVEY MAP

Examine the **1:50000 Ordnance Survey** extract and legend supplied with this paper.
Draw a sketch map of the area covered by the extract. On it **mark** and **name** the following:

- The River Nanny
- An 18 hole Golf Course
- A County Boundary
- A Reservoir
- An area of Coastal Deposition

(30 Marks)

B. SURFACE PROCESSES

Select any **one** of the following surface processes:

- Sea/marine action
- River action
- Glacial action
- Mass movement

Explain the formation of any **two** Irish landforms caused by your selected process with the aid of diagrams.

(40 Marks)

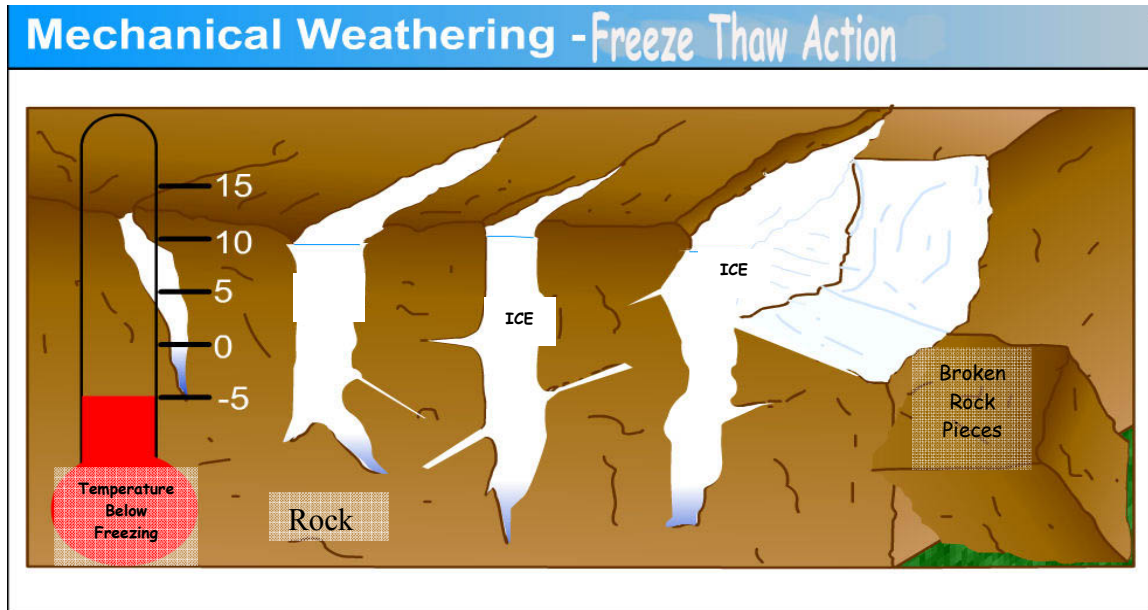
C. HUMAN INTERFERENCE

With reference to an **example** which you have studied, describe and explain **ONE** way that humans can have an effect on river processes **or** marine (sea) processes **or** mass movement.

(30 Marks)

Question 2

A. MECHANICAL WEATHERING



Use the diagram above to explain how the process of Freeze-Thaw works.

(30 Marks)

B. ROCK TYPE

- (i) Name **one** type of **igneous rock**.
- (ii) Name **one Irish location** for this type of rock.
- (iii) Explain **in detail** how this **rock was formed**.

(30 marks)

C. HUMAN INTERACTION

Humans interact with the rock cycle in many ways. These include:

- Extraction of building materials
- Oil/gas exploration
- Mining
- Geothermal energy production

Using an example studied by you explain any **one** of the ways listed above in detail.

(40 marks)

Question 3

A. HEIGHT OF VOLCANOES

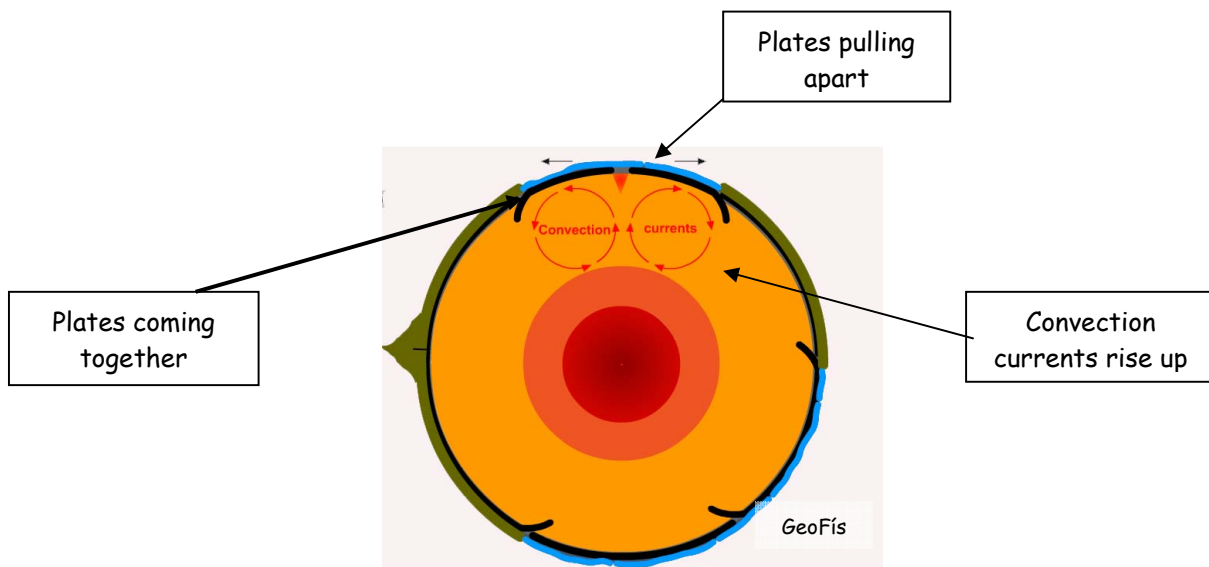
The table below shows the heights of some well known volcanoes around the world.

Name and Location	Height in Metres
Vesuvius-Italy	1281
Krakatoa-Indonesia	813
Fuji-Japan	3776
Rainier-USA	4392
St. Helens-USA	2549
Stromboli-Italy	924

Use graph paper to draw a graph that shows the data in the table above.

(30 Marks)

B. PLATE TECTONIC THEORY



Use the diagram above to help you to explain the key features of the **Theory of Plate Tectonics**

(40 marks)

C. EARTHQUAKES

Explain **TWO** effects of earthquakes in an urban area (city).

(30 marks)

REGIONAL GEOGRAPHY

Attempt ONE question

Question 4

A. IRELAND - REGIONS

Draw a sketch map of Ireland.

On it mark and name:

- **Two** contrasting regions
- **One** named mountain area **or one** named river in each region.

(30 marks)

B. IRISH REGIONS

Explain **two** factors which influence either agriculture **or** industry in **one** Irish region studied by you. Clearly state the name of the region in your answer.

(40 marks)

C. EUROPEAN REGIONS

Explain **two** problems faced by any **European Region -Not Ireland-** studied by you. Clearly state the name of the region in your answer.

(30 marks)

Question 5

A. TRANSPORT IN IRELAND

The data shown here refers to New Irish Vehicles Registered from 2001 to 2006.

Vehicle	2001	2002	2003	2004	2005	2006
Private cars	160,908	150,485	142,992	149,635	166,270	173,273
Goods vehicles	30,622	28,412	30,532	31,165	38,396	43,619
Tractors	2,681	2,868	2,970	2,881	3,168	3,687
Motor cycles	6,919	5,596	4,993	3,833	3,240	3,206
Other New Vehicles	2,602	2,268	2,600	2,894	3,359	3,773
Total	203,732	189,629	184,087	190,408	214,433	227,558

(CSO)

- (i) How many private cars were registered in 2006?
- (ii) How many tractors were registered in 2004?
- (iii) What was the total number of vehicles registered in 2003?
- (iv) Which type of vehicle showed the smallest increase from 2001 to 2006?
- (v) In which year was the least number of vehicles registered?

(30 marks)

B. EUROPEAN REGIONS

With reference to any **one European Region -Not Ireland-** which you have studied describe **two** influences which the climate has on:

Agriculture **or** Tourism.

Clearly state the name of the region in your answer

(40 marks)

C. NON-EUROPEAN CONTINENTAL/SUB-CONTINENTAL REGIONS

Examine the importance of **agriculture or tourism** in any **non-European Continental/Sub-Continental** region which you have studied. Clearly state the name of the region in your answer.

(30 marks)

Question 6**A. EMPLOYMENT IN IRELAND**

The following table shows the employment figures in thousands by sector for Ireland in May 2006.

Sector	Employment (000's)
Agriculture, Forestry and Fishing	114.5
Construction	262.7
Hotels and Restaurants	116.3
Financial and other Business Services	267.3
Transport, Storage and Communications	120.7

Use graph paper to draw a graph that shows the data in the table above.

(30 marks)

B. TYPES OF REGIONS

There are many types of regions on the earth's surface. These include:

- Climatic Regions
- Peripheral Regions
- Core Regions
- Urban Regions

- (i) Give a named **European–Not Irish**-example of any **two** of the regions listed above.
- (ii) Select any **one** of the regions above and explain **one** problem faced by that region. Clearly state the name of the region in your answer

(40 marks)

C. CULTURE WITHIN REGIONS

A region's culture can be defined by the following:

- Language
- Religion
- Music/Dance
- Traditional Costumes

Explain any **two** from the list above using any region which you have studied. Clearly state the name of the region in your answer

(30 marks)

SECTION 2 - ELECTIVES

You MUST attempt ONE question

From EITHER

- **Patterns and Processes in Economic Activities**
- OR**
- **Patterns and Processes in the Human Environment**

PATTERNS AND PROCESSES IN ECONOMIC ACTIVITIES

Attempt ONE question

Question 7

A. ORDNANCE SURVEY

Examine the **1:50000 Ordnance Survey** map extract accompanying this paper. Imagine you have the task of finding a suitable location for a new shopping centre.

- (i) State clearly where you would locate the shopping centre by **grid reference**.
- (ii) Explain fully **one** reason in favour of this location and **one** reason against it.

(30 marks)

B. MULTINATIONAL COMPANIES

Many multinational companies (MNCs) have set up in Ireland in recent years.

- (i) Name **one** multinational company studied by you.
- (ii) Explain fully **one** reason why Ireland is attractive to such companies.
- (iii) Explain **one** reason why such companies might move elsewhere.

(30 marks)

C. LOCATION OF INDUSTRY



Study this satellite photograph of an industrial estate near Galway city.

Explain **two** reasons why such locations are attractive as a location for industries.

(40 marks)

Question 8**A. HUMAN DEVELOPMENT**

The statistics below refer to the leading nations ranked by the Human Development Index.

	Human Development Index	Life expectancy at birth	*GDP per capita
	(HDI) value	(years)	US Dollars
Norway	0.963	79.4	48,412
Australia	0.955	80.3	26,275
Luxembourg	0.949	78.5	59,143
Canada	0.949	80	27,079
Sweden	0.949	80.2	33,676
Ireland	0.946	77.7	38,487
Belgium	0.945	78.9	29,096
United States	0.944	77.4	37,648

*GDP = Gross Domestic Product

- (i) Which country has the highest life expectancy at birth?
- (ii) Which country has the lowest life expectancy at birth?
- (iii) Name the country which has:
 - a. The highest GDP
 - b. The lowest GDP.
- (iv) Calculate the difference between the highest and the lowest GDP.

(30 marks)

B. EUROPEAN UNION

The European Union has many policies which have important effects on the Irish economy such as:

- The CAP (Common Agriculture Policy)
- The RDF (Regional Development Fund)
- CFP (Common Fisheries Policy)

Explain **two** effects of any **one** of the above policies on Ireland's economy.

(30 marks)

C. DEVELOPING ECONOMIES

Describe **two** problems faced by a country or region studied by you which is developing. Clearly state the name of the country or region in your answer

(40 marks)

Question 9**A. GREENHOUSE GAS EMISSIONS**

The table below refers to Carbon Dioxide emissions in Ireland from 1999 to 2003.

Carbon Dioxide (CO ₂)					
Year	1999	2000	2001	2002	2003
Kilotonnes	42,133	44,160	46,460	45,808	44,450

Use graph paper to draw a graph that shows the data in the table above.

(30 marks)

B. GLOBAL WARMING

The Stern Report predicts that global warming could shrink the world's economy by 20% unless action is taken now.

- (i) Describe **two** effects of global warming.
- (ii) Describe **two** actions which could be taken to reduce these effects.

(40 marks)

C. ENVIRONMENTAL ISSUES

There are a number of environmental issues which are causing concern in Ireland at present. Amongst these are the following:

- Exploitation of the Corrib gas field off the Mayo coast
- Over fishing in Irish waters
- The high amount of waste being produced
- The development of wind farms.

Examine the concerns caused by **one** of the issues above and in your answer describe **two** concerns caused by your chosen issue.

(30 marks)

PATTERNS AND PROCESSES IN THE HUMAN ENVIRONMENT

Attempt ONE question

Question 10

A. LAND USE

Examine the **aerial photograph** accompanying this paper.

Draw a sketch map of the area shown on the photograph. On your sketch map **mark and name** the following:

- Two connecting streets
- A large car park
- A bridge
- A recreational (leisure) area
- A modern housing estate

(30 marks)

B. DEVELOPMENT OF TOWNS

Examine the **1:50000 Ordnance Survey map** accompanying this paper.

Use evidence from the map to explain **two** reasons why the town of Drogheda developed at its present location.

(40 marks)

C. TRAFFIC CONGESTION

Below is a traffic camera image taken by Dublin City Council showing traffic at Donnybrook. Most modern towns and cities suffer traffic congestion.



- Explain **two** causes of traffic congestion in any city studied by you. Clearly state the name of the city in your answer.
- Examine in detail **one** solution to this traffic congestion.

(30 marks)

Question 11

A. POPULATION

Read the report below and answer the questions which follow it in **your answer book**:

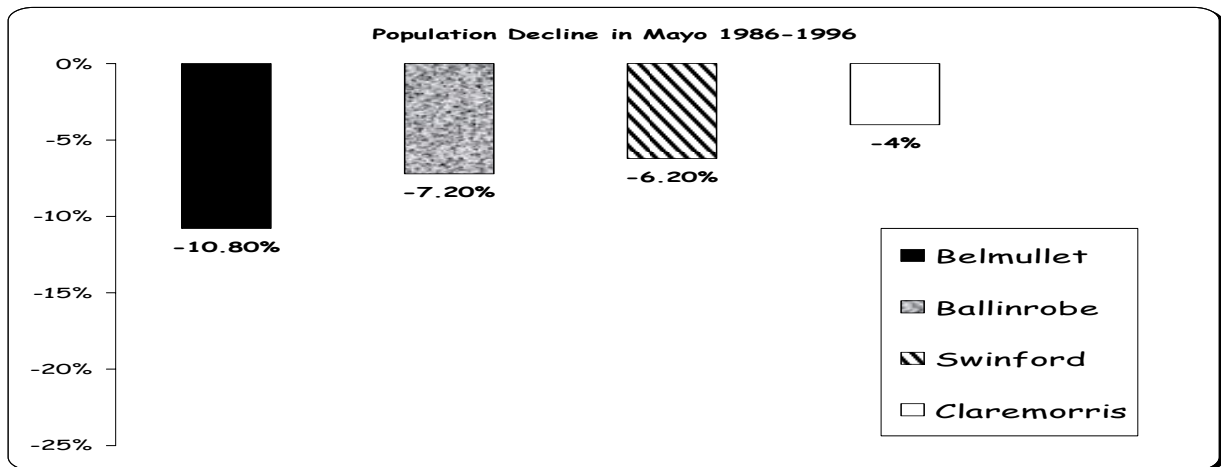
“The Irish Republic’s economy will continue to grow strongly over the coming 15 years as the population reaches 5.3 million by 2020. It is also forecast that by 2020 almost one in five of the population, close to one million people, will be migrants. The total population is forecast to reach 6 million by 2050. The Irish Republic’s present population is 4.04 million.”

- (i) What is Ireland’s population forecast to be in 2020?
- (ii) In 2020, what numbers of people are expected to be migrants?
- (iii) In which year is it expected that the population of the Irish Republic will reach 6 million?

(30 marks)

B. MIGRATION

The Chart below refers to Population Decline in Mayo between 1986 and 1996.



- (i) Which area had the greatest drop in population?
- (ii) By what percent did the population of Swinford fall?
- (iii) Explain **two** reasons why the population of rural areas such as these are falling.

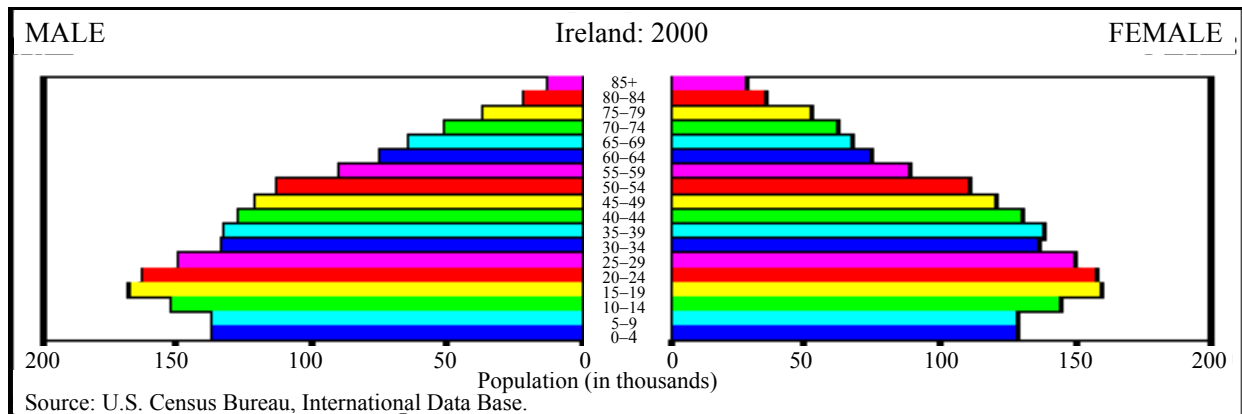
(30 marks)

C. MIGRANTS

Explain any **two** reasons why migrants might leave their native (home) countries.

(40 marks)

Question 12



A. POPULATION STRUCTURE

Examine the population pyramid for Ireland shown above.

- (i) Which age group is the largest?
- (ii) Approximately how many females are over the age of 85?
- (iii) Name **one** difference in age-structure between the male and female populations on the chart.

(30 marks)

B. URBAN SPRAWL

Below is a photograph of a shanty town in Manila in the Philippines.



Explain **two** reasons why shanty towns such as this develop near cities in the Developing World.

(30 marks)

C. ORDNANCE SURVEY

Examine the **1:50000 Ordnance Survey** map extract accompanying this paper. This map shows many examples of historic settlement (antiquities).

- Name and give the **location by grid reference** of any **two** examples of historic settlement (antiquities).
- Write a brief description of **each** example of historic settlement (antiquities) named above.

(40 marks)

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