Coimisiún na Scrúduithe Stáit
State Examinations Commission

_____

LEAVING CERTIFICATE EXAMINATION, 2009

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GEOGRAPHY – ORDINARY LEVEL

_____

FRIDAY 5 JUNE – AFTERNOON 2.00 to 4.50

_____

Examination Number

For examiners use only

Part One Short-Answer Questions	Total Marks	Adv. Ex.	App. Ex.
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 Mark			
Disallowed Marks			
Net Mark			

N.B. Remember to return this paper with your answer book.
Otherwise, marks will be lost.

1. **Coastal Landforms**
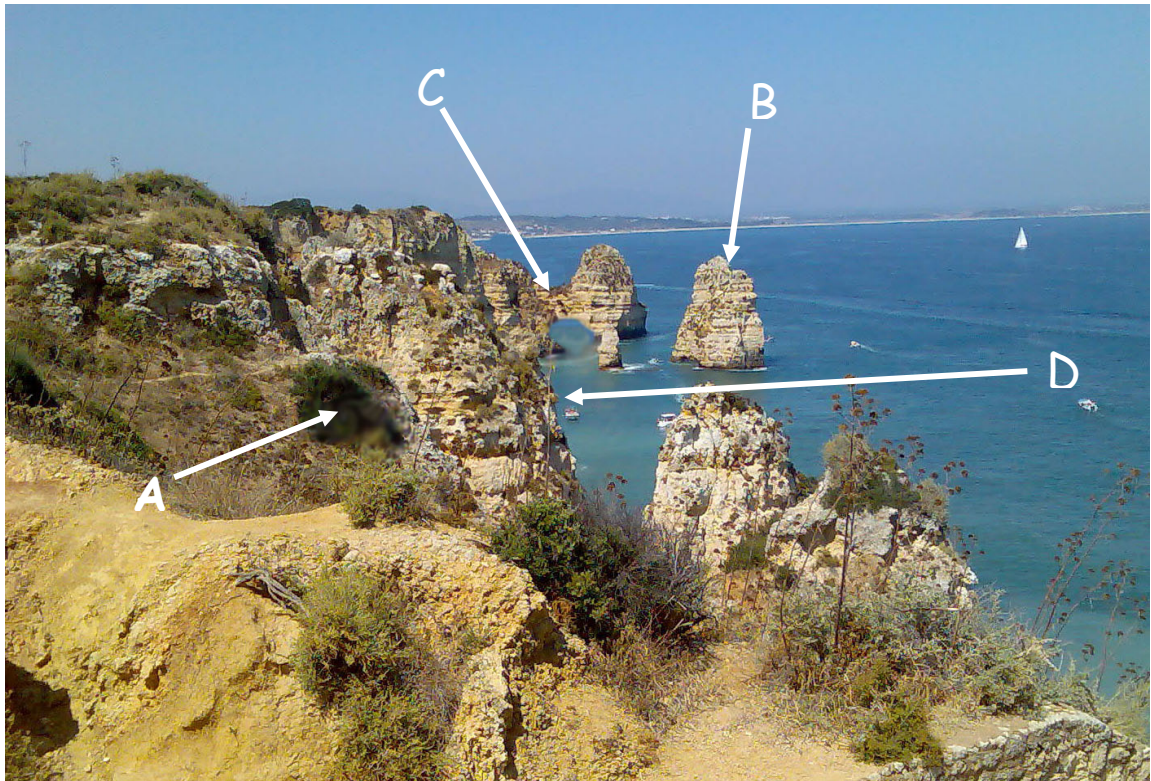
(i) Examine the photograph above taken on the Algarve in Portugal and then match each of the named landforms in the table below with **one** of the letters in the photograph.

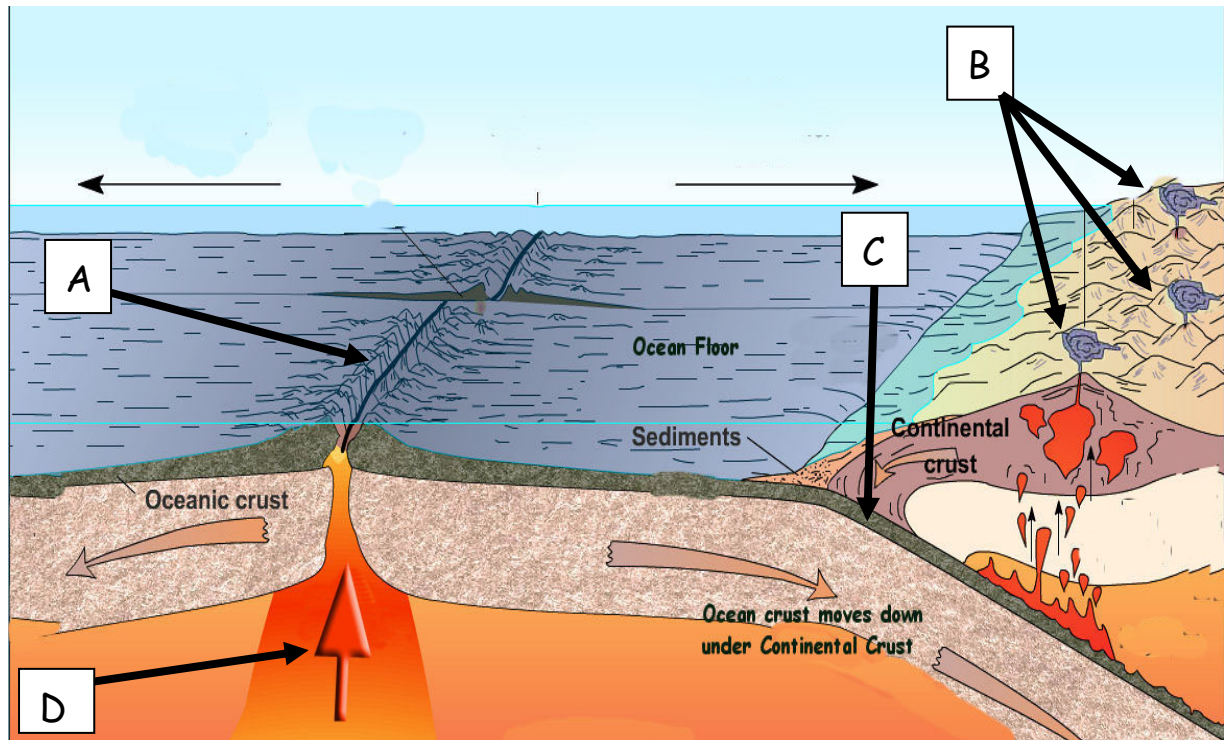| Landform	Letter
Sea Stack or Sea Stump	
Cave	
Cliff	
Sea Arch	

(ii) Read the statement below and place an **X** in the correct box.
"All of the features in the photograph above were formed by **marine deposition**."

a. True [ ]

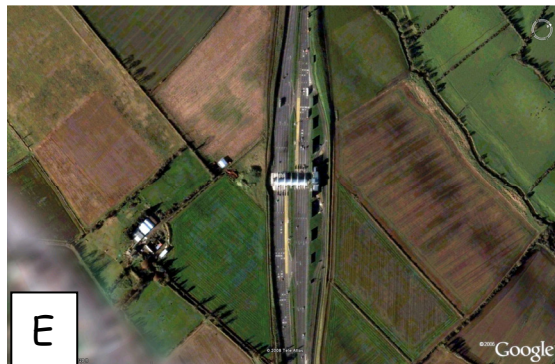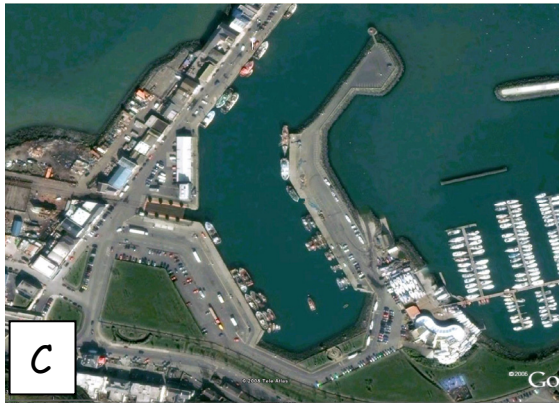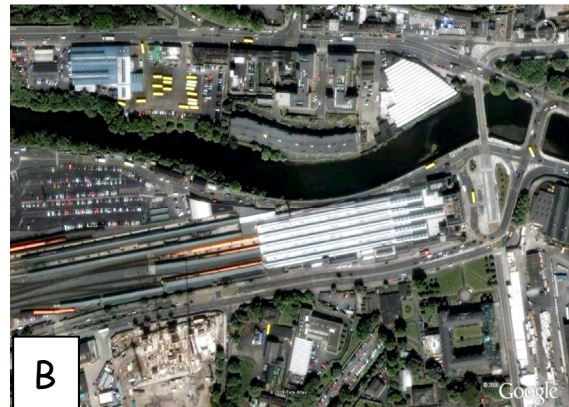b. False [ ]

[10 marks]

2.   Plate Tectonics

(i)   Examine the diagram above and then match each of the named landforms in the table below with **one** of the letters in the diagram.

Landform	Letter
Volcanoes	
Mid-Ocean Ridge	
Subduction Zone	
Rising Magma	

(ii)   Write the name of any **volcano** in the box below.

[10 marks]

3.   Maps and Photographs

Examine the photographs on this page and indicate the name of each of the facilities in the photographs by writing the correct letter in each of the boxes below.

Facilities	Letter
Harbour	
An International Airport	
A Race Course	
A Toll Plaza on a motorway	
Railway station close to a river	

[10 marks]

4. **Limestone Features**

The following are features of karst (limestone) landscape. Some were formed on the surface and some underground.
Indicate where each of the features were formed by writing the word "**Surface**" or "**Underground**" in the boxes below.

Features	Surface/Underground
Cave	
Clint	
Stalagmite	
Stalactite	
Limestone Pavement	

[10 marks]

5. **Ordnance Survey Maps**

Examine the 1:50,000 Ordnance Survey extract and legend which accompanies this paper.

(i) Name the **feature of antiquity** which can be found at each of the following grid references:
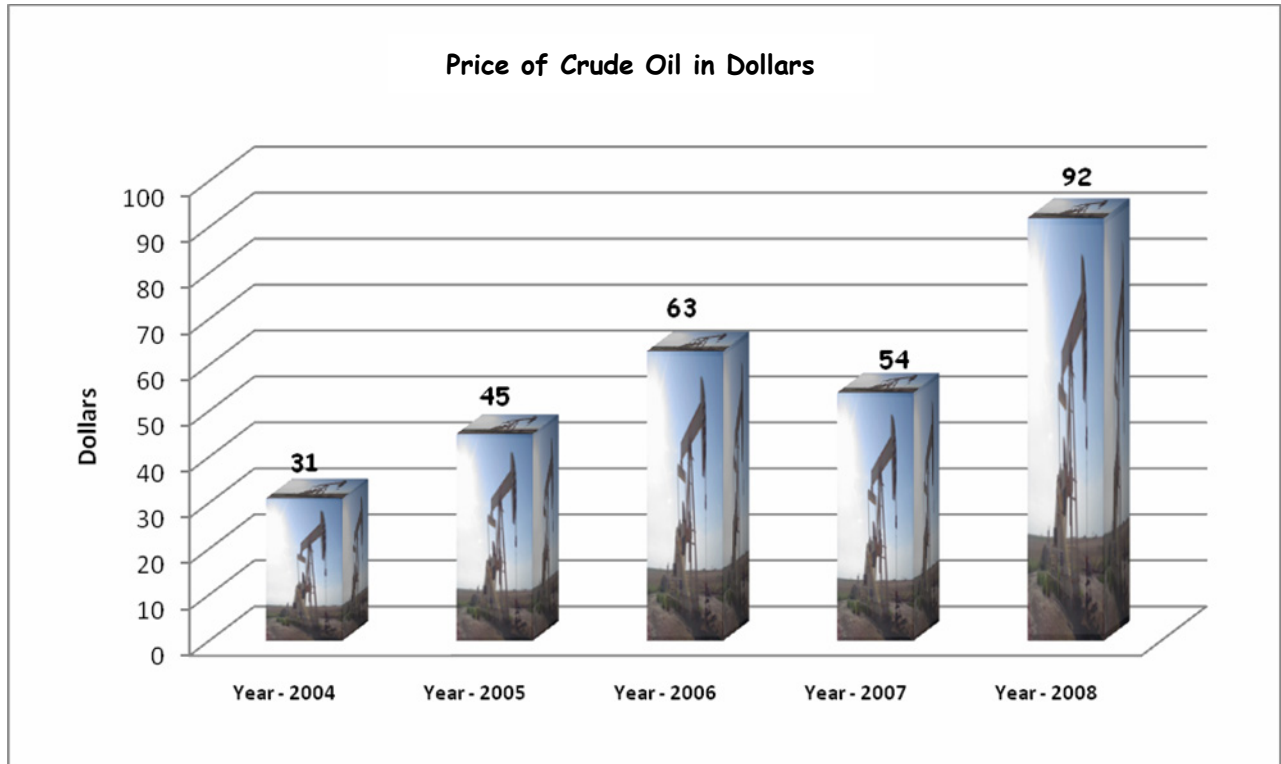
- O 264 004 _____

- T 337 931 _____

- T 274 914 _____

(ii) Give a **six figure grid reference** for the railway station in Wicklow town on the map.

[10 marks]

6.   **Oil Prices**

The chart below shows the price of a barrel of crude oil (US$) for January, 2004-2008. Examine the chart carefully then answer the questions which follow it.

Price of Crude Oil in Dollars

Question	Answer
During which year did oil reach its **highest price**?	
During which year did oil reach its **lowest price**?	
What is the **difference** between the highest and lowest prices during the period 2004-2008?	
What is the **average** price of oil for the five years in the chart? (2004-2008)	
Oil is a fossil fuel. Name **one** other fossil fuel.	

[10 marks]

7.   Aerial Photograph

Examine the aerial photograph of Wicklow that accompanies this paper.

(i)   Is the photograph vertical or oblique? _____

(ii)   Using the accepted notation (Right Background etc.) write the locations of:

A Bridge: _____

A Housing Estate: _____

Warehouses: _____

(iii)   State the season during which you think the photograph was taken.
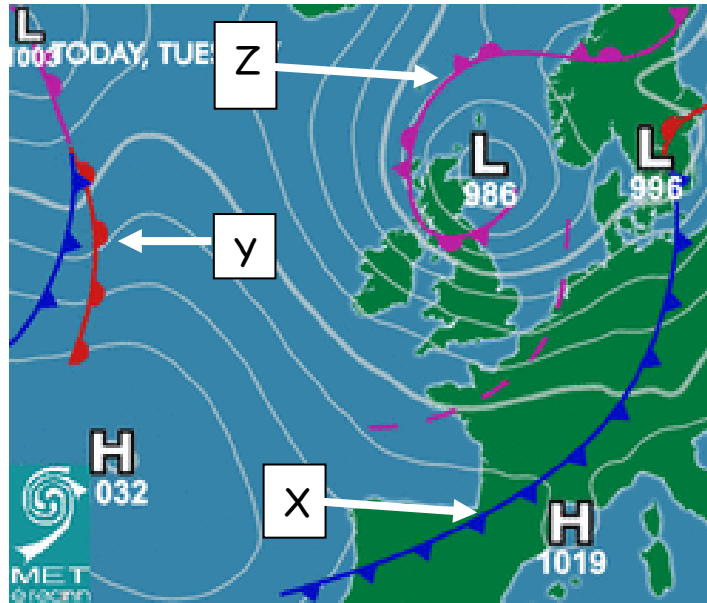
_____

[10 marks]

8.   Physical features

The following are all features of **erosion** or **deposition**. In each case, state whether it was formed by erosion or deposition.

Feature	Erosion/Deposition
Cirque/Corrie	
Drumlin	
Sand Bar	
Waterfall	
Bay and Headland	

[10 marks]

9.   Weather Charts

(i)   The weather chart shows a warm front, a cold front and an occluded front. Write the correct letter **X**, **Y** or **Z** which matches each front, in the boxes below.

Type of Front	Letter
Warm Front	
Cold Front	
Occluded Front	

(ii)   Read the statement below and place an **X** in the correct box.
       "The barometric pressure over Scotland is **1019 mb**."

       a. True   ☐

       b. False   ☐

(iii) The weather you would expect in Ireland if a Cold Front was over the country is:
       (Place an **X** in the correct box)

Showers and thunderstorms	
Continuous light or heavy rain	
A sunny day with clear skies	

[10 marks]

10.   **Irish Population Figures.**

Year	Females	Males	Total Population
1971	1,495,000	1,482,000	2,978,000
1981	1,729,000	1,714,000	3,443,000
1991	1,753,000	1,772,000	3,525,000
1996	1,800,000	1,825,000	3,626,000
2002	1,946,000	1,971,000	3,917,000
2006	2,121,000	2,118,000	4,239,000

www.cso.ie

Study the above table which shows Ireland's population between 1971 and 2006 and answer the following questions:

(a)   What was the **total population** in Ireland in 1981?

_____

(b)   How many **females** were there in Ireland in 1996?

_____

(c)   Which year had the **lowest** total population?

_____

(d)   How many **males** were there in Ireland in 2006?

_____

(e)   What is the **difference** between the total population in 1971 and the total population in 2006?

_____

[10 marks]

11. **Ordnance Survey Map**

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

(a)   In what direction is the Post Office in Rathnew T 289 956 **from** the Post Office in Ashford T 269 972? Write your answer in the box below.

```
┌─────────────────────────────────────────────┐
│                                             │
│                                             │
│                                             │
└─────────────────────────────────────────────┘
```

(b)   Calculate the total area of the map extract in square kilometres. Write your answer in the box below.

```
┌─────────────────────────────────────────────┐
│                                             │
│                                             │
│                                             │
└─────────────────────────────────────────────┘
```

[10 marks]

12. **Economic Activities**

In the box below write the **category** (Primary/ Secondary/Tertiary) to which each **economic activity** belongs. One has been completed for you.

Economic Activity	Category
Agriculture	
Manufacturing Industry	
Transport	
Mining	
Tourism	
Forestry	Primary

[10 marks]

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]

ANSWER THESE QUESTIONS IN YOUR ANSWER BOOK

SECTION 1 - CORE

You must attempt **TWO** questions:

One from Patterns and Processes in the Physical Environment

and

One from Regional Geography

Question 1

A. Ordnance Survey

Examine the 1:50,000 Ordnance Survey extract and legend which accompanies this paper.
Draw a sketch map of the area shown and on it **mark** and **name** the following:

- The Coastline
- The area of highland south of Wicklow Town
- The River Vartry
- A <u>named</u> headland
- An area of Coniferous Plantation.

[30 marks]

B. Surface Processes

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

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

Explain with the aid of diagrams the formation of any **one** Irish landform resulting from your selected process.
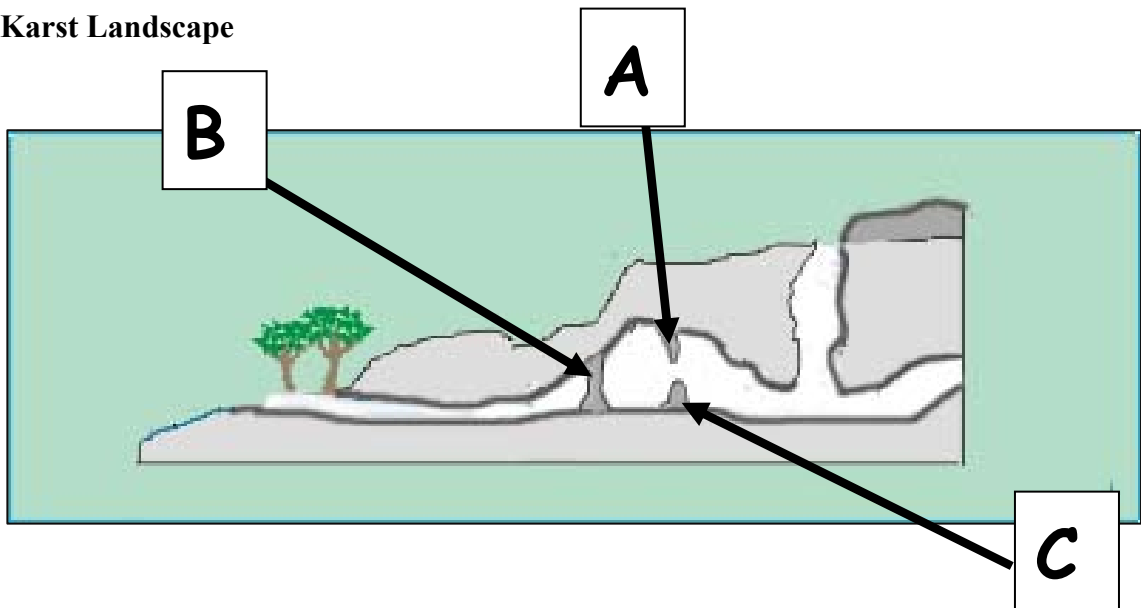
[30 marks]

C. Volcanoes

Volcanoes can have both negative and positive effects on the landscape and on people.

Explain **one negative** and **one positive** effect of volcanoes.

[40 marks]

Question 2

A.   Karst Landscape

Study the diagram of a karst landscape above and answer the following questions in your answer book:

(i)   Write the correct names for the features labelled **A**, **B** and **C** above into your answer book.

(ii)   Name the most common type of rock found in areas such as this. Write your answer into your answer book.

(iii)   Name an area in Ireland or in the world where you would find a landscape such as this. Write your answer into your answer book.

[30 marks]

B.   Rock Type

(i)   Name **one** type of **igneous** rock.

(ii)   Name an **Irish** location where igneous rock is found.

(iii)   Describe **in detail** how igneous rock was formed.

[40 marks]

C.   Human Interaction

Describe and explain how humans attempt to control **one** of the following surface processes:
  • River Processes
  • Coastal Processes
  • Mass movement.

[30 marks]

Question 3

A.   **Earthquakes**

Region	Magnitude
Algeria	4.8
The Congo	5.9
India	4.3
Indonesia	7.5
China	7.9
Pakistan	6.4

Incorporated Research Institutions for Seismology

Use **graph paper** to draw a graph that shows the data in the table above.
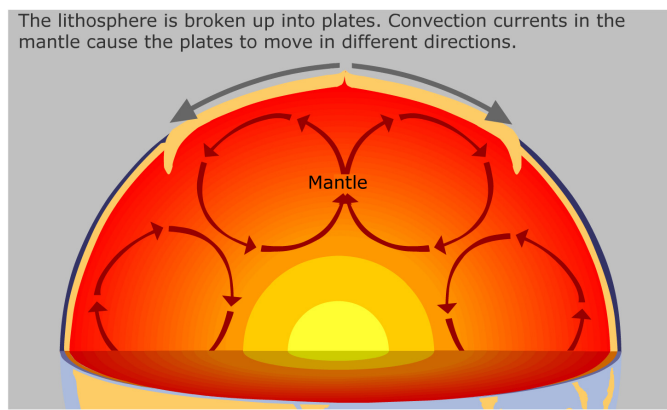
[30 marks]

B.   **Fold Mountains**

To the left is a photograph of Fold Mountains in Europe.

Explain with the aid of a diagram or diagrams how Fold Mountains are formed. In your answer name an example you have studied.

www.wayfaring.info

[30 marks]

C.   **Plate Tectonics**

The lithosphere is broken up into plates. Convection currents in the mantle cause the plates to move in different directions.

Mantle

Use the diagram above to explain the **Theory of Plate Tectonics**.

[40 marks]

Question 4

A. Ireland – Regions

Draw a sketch map of Ireland.
On it mark and name:

- **Two** contrasting regions
- **One** town or city in each region
- **One named** mountain in each region.

[30 marks]

B. European Region

Name **one European Region - Not Ireland** - which you have studied.
Describe the development of **either** agriculture **or** the tourist industry in that region.
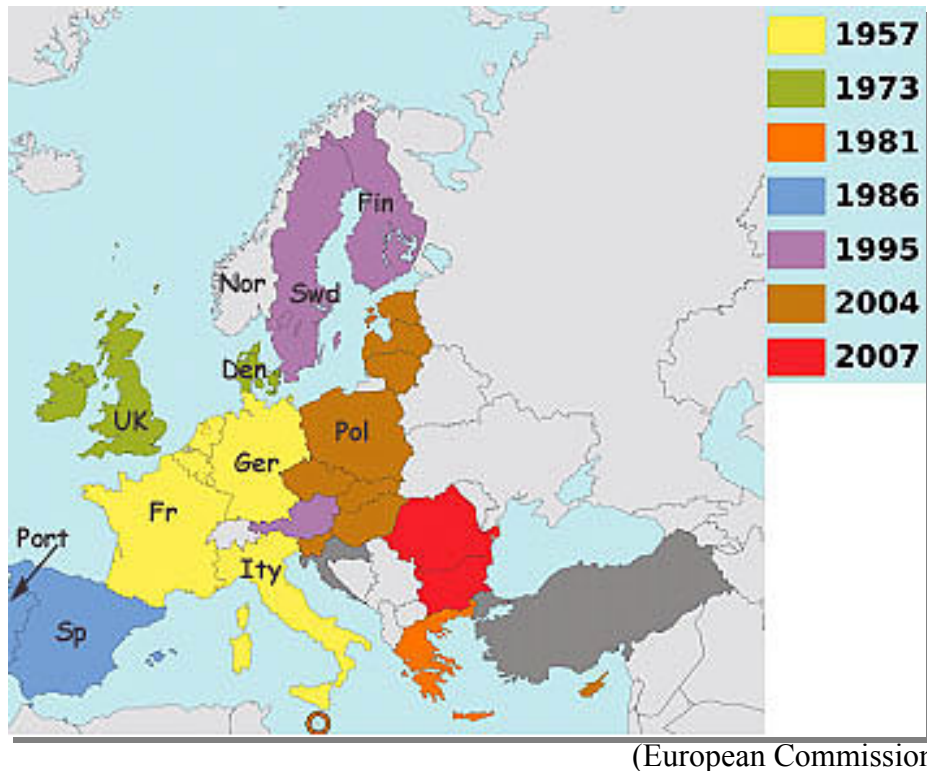
[40 marks]

C. Urban Regions in Ireland

www.countrywidemedical.co.uk

(i)   Name any **one** urban area in Ireland which you have studied.

(ii)   Explain **one** reason for the growth of that urban area.

(iii)   Describe **one** problem this growth has caused within that urban area.

[30 marks]

Question 5

A. European Union Members

(European Commission)

Study the map above which shows how the EU has grown since 1957 and answer the questions which follow in your answer book:

(i)   Name **two** countries that joined in 1957.

(ii) In what **year** did Ireland join?

(iii) Name **one other** country that joined the same year as Ireland.

(iv) In what **year** did Spain and Portugal join?

[30 marks]

B. Tourism in Ireland

With reference to any **Irish region** which you have studied answer the following questions. Clearly state the name of the region in your answer.

(i)   Explain **two** reasons why tourists are attracted to the region.

(ii) Explain **one** problem that tourism brings to the region.
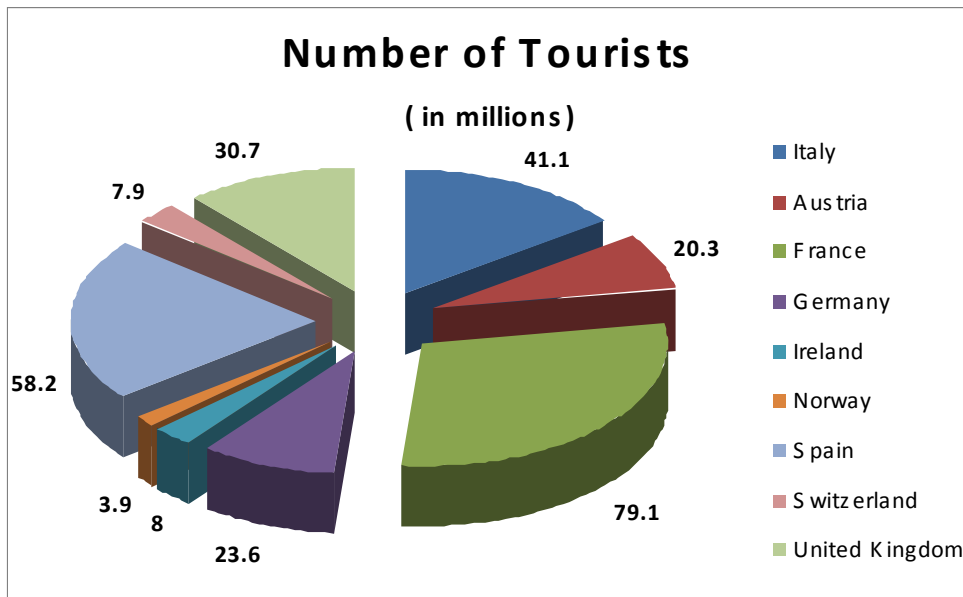
[40 marks]

C. Continental/Sub-Continental regions

Examine the importance of agriculture to any **one 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.   Tourism in Europe

Examine the chart above which shows the number of tourists arriving in European Countries in 2006 and then answer the following questions in your answer book.

(i)   Which country received the least number of tourists in 2006?

(ii)   Which country received the largest number of tourists in 2006?

(iii)   Calculate the difference between the highest and lowest numbers of tourists arriving.

(iv)   How many tourists arrived in the Germany in 2006?

(v)   Which country received 7.9 million tourists in 2006?

[30 marks]

B.   Cultural Regions

"The culture of a region is often defined as its **language**, **music**, **dance** and **religion** but these can vary from region to region."

Examine the importance of culture in any one **Irish region** which you have studied using any **two** of the factors mentioned above.

[30 marks]

C.   European Regions

Describe any **two** problems facing agriculture **or** manufacturing industry in a **European Region - not Ireland -** of your choice.

[40 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

Question 7

A. **Ordnance Survey Map**

Examine the 1:50,000 Ordnance Survey extract and legend which accompanies this paper.
Draw a sketch map of the area shown and on it **mark** and **name** the following:

- The N11 National Primary Road
- The railway line
- An 18 hole Golf Course
- An electricity transmission line
- A Post Office.

[30 marks]

B. **Fossil Fuels and Global Warming**

http://newsbusters.org

"Many scientists believe that the burning of fossil fuels will lead to global warming and that this is one of the greatest challenges facing our planet at the beginning of the 21st century."

(i)   Explain **two** effects of global warming.

(ii)   Explain **one** measure people could take to lessen the impact of global warming on the planet.

[40 marks]

C. **European Union Policies**

Membership of the European Union has been a major factor in Ireland's economic development.
Describe **two** ways in which Ireland has gained from its EU membership.

[30 marks]

Question 8

A. Fish Catches

Examine the table showing the top 10 fishing nations in the North-East Atlantic and answer the questions which follow in your answer book.

Catches in NE Atlantic (000 tonnes live weight)

COUNTRY	2000	2002	2004	2006
Denmark	1534	1442	1087	864
France	491	497	467	423
Germany	178	194	236	259
Iceland	1990	2138	1742	1340
Ireland	275	242	246	211
Netherlands	336	350	391	357
Norway	2693	2725	2511	2243
Spain	417	323	303	373
Sweden	337	294	269	268
UK	738	679	650	604

(i) Which country had the highest catch in 2006?

(ii) Name one country which had an overall increase between 2000 and 2006?

(iii) By how much did Ireland's catch fall between 2000 and 2006?

(iv) Did Norway's catch rise or fall between 2000 and 2006?

(v) Which country had the highest catch in 2000?

[30 marks]

B. Multinational Companies

Many multinational companies have set up in Ireland in recent years.

(i) Name **one** multinational company studied by you and state **where** it is located.

(ii) Explain fully **one** reason why Ireland is attractive to such companies.

(iii) Explain **one** reason why such companies might move elsewhere.

[40 marks]

Q.8C is on the next page.

C. Renewable Resources

http://www.eia.doe.gov
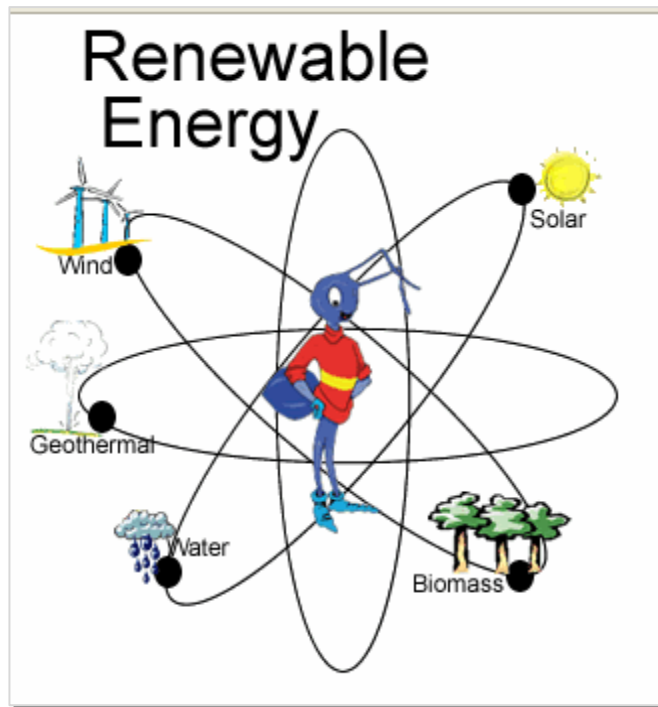
(i) Name **two** sources of renewable energy which are suitable for use in Ireland.

(ii) Choose **one** source named in Part (i) above and explain:

(a) **One** benefit of this source of renewable energy to the Irish Economy.

(b) **One** benefit of this source of renewable energy to the environment in Ireland.

[30 marks]

Question 9

A.   Statistics

Country	GDP per capita (US$)
Iceland	37,000
Norway	41,000
Australia	32,000
Canada	33,000
Ireland	39,000

(HDI Report)

The table above shows the Gross Domestic Product per capita (to the nearest 1,000US$) of five nations, as classified by the Human Development Index.

Use **graph paper** to draw a graph to represent this data.

[30 marks]

B.   Ordnance Survey

Examine the 1:50,000 Ordnance Survey map extract and legend accompanying this paper. Imagine you have the task of finding a suitable location for a Wind Turbine Farm (Wind Mills).

(i)   State clearly where you would locate the wind farm using a **six figure grid reference**.

(ii)   Explain fully **one** reason in favour of this location and **one** reason against.

[30 marks]

C.   Developing Economies

"Throughout history many European countries have conquered other countries in Africa and Asia. This is called colonialism. This had some negative effects on their economies. These effects can still be felt today."

Describe **two** of these effects on any developing country or region studied by you.

Clearly state the name of the country or region in your answer.

[40 marks]

Question 10

A. **Aerial Photograph**

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 land uses:

- An area of Industry
- A Recreational (Leisure) area
- A Commercial area
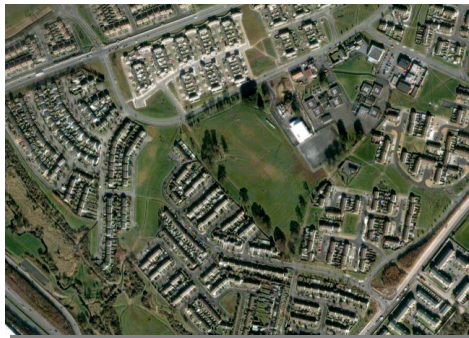- Transport
- A Residential (Housing) area.

[30 marks]

B. **Migration**

(i) Explain **two** reasons why young people might migrate from rural areas to cities.

(ii) Explain **two** problems caused by this migration in the rural areas they have left.

[40 marks]

C. **Urban Sprawl**

http/maps.live.com

(i) Explain the term **urban sprawl**.

(ii) Explain **two** causes, and **one** problem, resulting from urban sprawl in any city studied by you.

[30 marks]

A.   Population Dynamics

"Ireland's population is set to increase to 6.7 million in just over 50 years' time, according to official forecasts compiled by the European Union. The 52 per cent increase – up from a current population of around 4.4 million – would make Ireland one of the fastest growing countries in Europe. Ireland's population is expected to be significantly older, with a quarter aged 65 or over, and one-in-10 aged 80 or older."

The Irish Times, August 27, 2008

Read the article above carefully and answer the questions below.

(i)   What is the current population of Ireland?

(ii)   What is the predicted population of Ireland in 50 years' time?

(iii)   Explain **two** difficulties that a rise in population can cause for a country.

[30 marks]

B.   Population Growth

Explain **two** reasons why the population in poorer developing countries grows faster than the population in wealthier developed countries.

[40 marks]

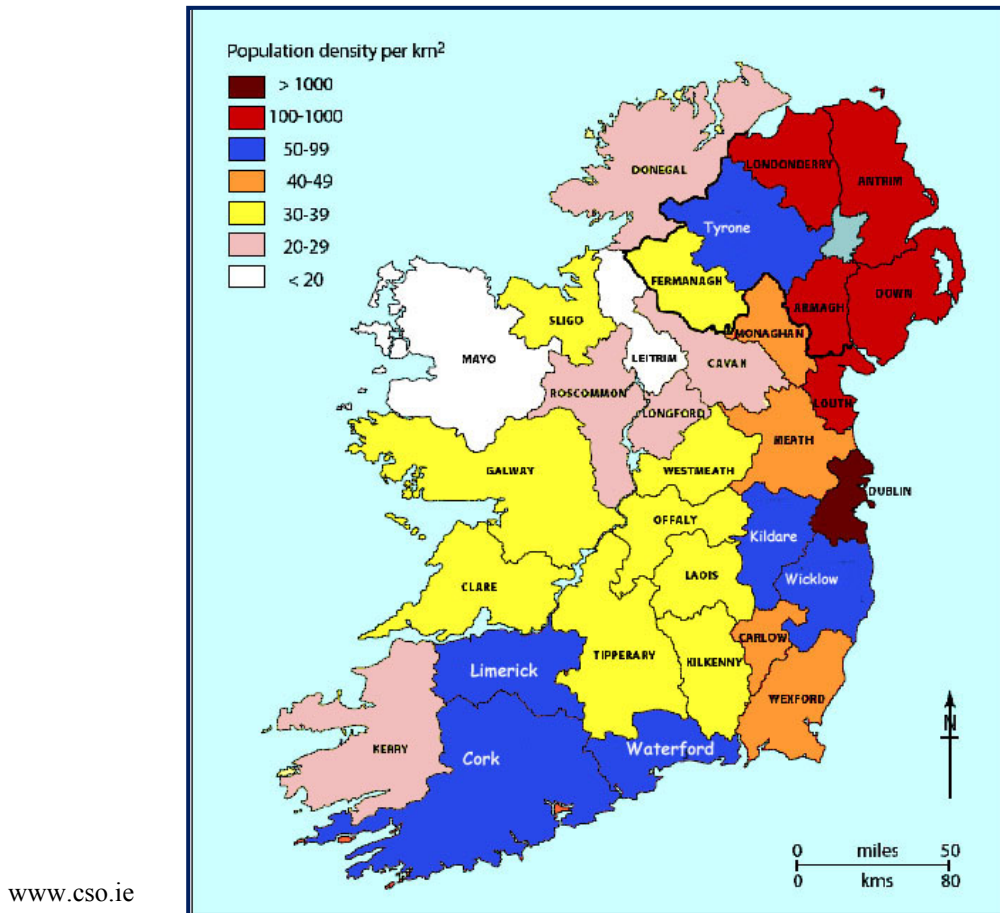**C.   Development of Towns – Ordnance Map**

Examine the 1:50,000 Ordnance Survey map extract and legend accompanying this paper.
Using map evidence explain **two** reasons why the town of Wicklow developed at its present location.

[30 marks]

Question 12

A. **Population Density.**

www.cso.ie

Examine the population density map of Ireland above and answer the following questions in your answer book.

(i) Name the county with the highest population density.
(ii) Name the **two** counties with the lowest population density.
(iii) What is the population density for County Kerry?
(iv) Name any **two** counties with a population density of 50-99 persons per km^2.

[30 marks]

B. **Traffic Congestion**

(i) Explain **two** causes of traffic congestion in any city studied by you. Clearly state the name of the city in your answer.

(ii) Examine in detail **one** solution to this traffic congestion.

[40 marks]

C. **Ageing Population**

Name and explain **two** difficulties that an ageing population can cause for a country.

[30 marks]

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