



Coimisiún na Scrúduithe Stáit
State Examinations Commission

LEAVING CERTIFICATE EXAMINATION, 2013

GEOGRAPHY – ORDINARY LEVEL

FRIDAY, 7 JUNE – MORNING, 9.30 - 12.20

Examination Number

For the Examiner's Use Only

Part One Short-Answer Questions	Total Mark	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			

Note: Remember to return this paper with your answer book.

Otherwise marks will be lost.

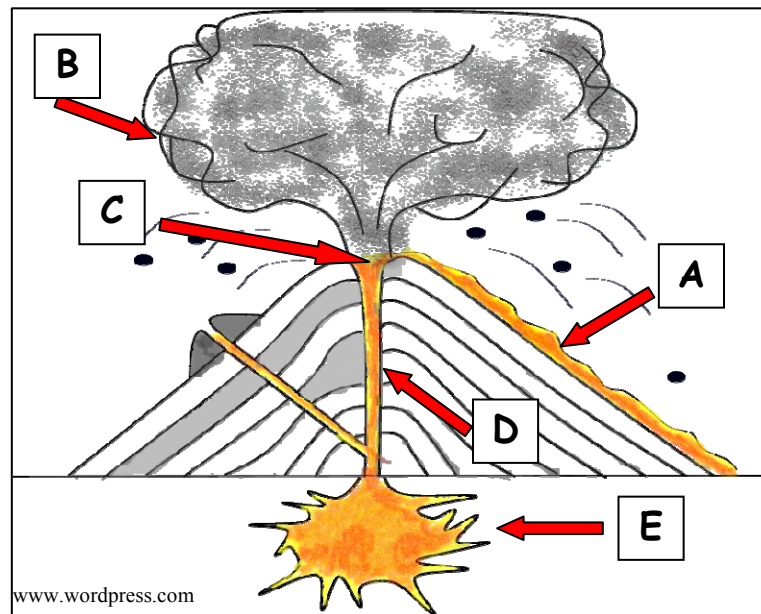
PART ONE – SHORT-ANSWER QUESTIONS – 100 MARKS

Attempt **TEN** questions.

All questions carry equal marks.

THESE QUESTIONS ARE TO BE ANSWERED IN THE SPACES PROVIDED

1. Volcano



Match each of the letters **A**, **B**, **C**, **D** and **E** in the above diagram with the correct volcanic feature in the table below.

Volcanic Feature	Letter
Magma Chamber	
Vent	
Lava	
Ash Cloud	
Crater	

[10m]

2. Rocks

- (i) Match the name of the rock with the location most associated with it, by writing the correct letter in each case, in the table below.

Letter	Rock Type
A	Limestone
B	Marble
C	Basalt

Location	Letter
The Giant's Causeway	
The Burren	
Connemara	

- (ii) State whether each of following rocks is an Igneous **or** Sedimentary **or** Metamorphic rock.

Marble _____

Basalt _____

[10m]

3. Physical Processes

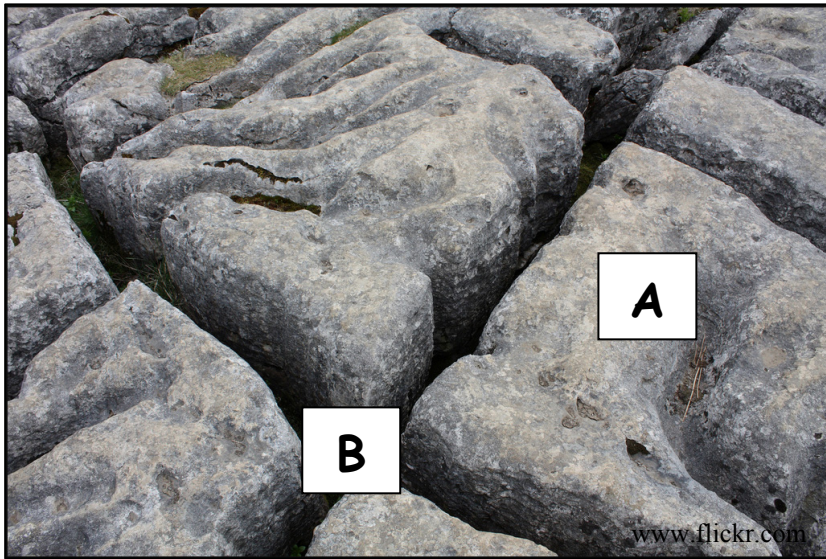
Match each of the features below with the name of the process most associated with its formation, by writing the correct letter in each case, in the table below.

Letter	Feature
A	V-Shaped Valley
B	Spit
C	U-Shaped Valley
D	Scree
E	Limestone Pavement

Name of Process	Letter
Freeze Thaw Action	
River Erosion	
Chemical Weathering	
Plucking and Abrasion	
Deposition	

[10m]

4. Karst Landscape



Examine the photograph above showing a section of a limestone pavement and answer the following questions.

(i) Name the limestone features **A** and **B**.

A _____

B _____

(ii) Name **one** location in Ireland where features like these are found.

(iii) Name **two underground** features which can be found in karst regions.

1. _____

2. _____

[10m]

5. Ordnance Survey Map

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

- (i) Imagine that you are travelling from Bree Hill at **S 935 329** to Enniscorthy at **S 973 399**.

In what direction would you be travelling?
Write the correct answer in the box below.

- (ii) Measure the length in kilometres, of the N11 National Primary Road from where it enters the map at **S 980 430** to where it meets the railway line in Enniscorthy at **S 973 399**.

Write the correct answer in the box below.

[10m]

6. Ordnance Survey Map

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

- (i) Name the features which can be found at each of the following grid references.

- T 001 313 _____
- S 962 359 _____
- S 974 402 _____
- S 978 419 _____

- (ii) Draw the Ordnance Survey map symbol for a Viewpoint, in the box below.

[10m]

7. Aerial Photograph

(i) Examine the aerial photograph of Enniscorthy accompanying this paper.

Using accepted notation (right background, etc.), write the correct location of each of the following.

- A meander _____
- A car park _____
- A recreational area _____
- A bridge with cars _____

(ii) Is the aerial photograph a vertical or an oblique photograph?

[10m]

8. Regions

Match the description of a region with the example most associated with it, by writing the correct letter in each case, in the table below.

Letter	Description of Region
A	An administrative region in France.
B	A region defined by religion.
C	A region defined by language.
D	A region defined by climatic factors such as temperature and rainfall.
E	A core region.

Example of Region	Letter
The Islamic World	
A Département	
The Mediterranean	
The Greater Dublin Area	
The Gaeltacht	

[10m]

9. Economic Activity



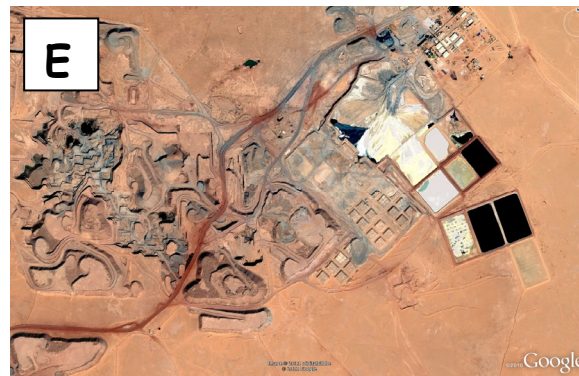
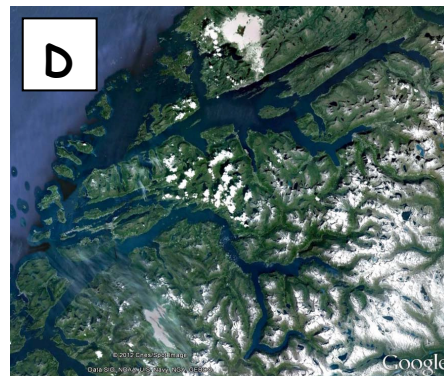
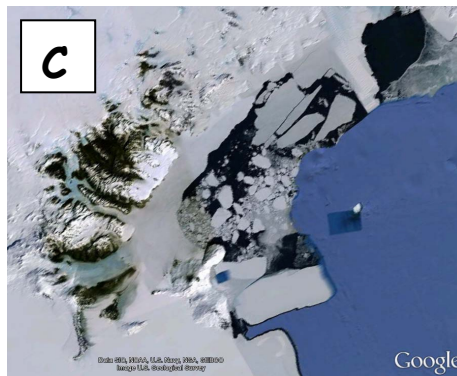
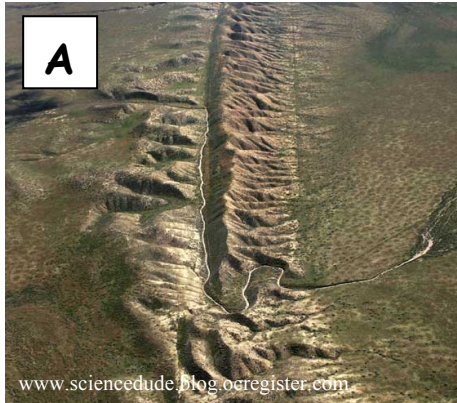
- (i) Examine the photographs above and correctly match each of the letters on the photographs with **one** of the economic activities named in the table below.

Economic Activity	Letter
Agriculture	
Tourism	
Mining	
Industry	

- (ii) Examine the photographs above again. Which image shows an example of a **Secondary Economic Activity**?
Write the correct letter in the box below.

[10m]

10. Satellite Image Interpretation

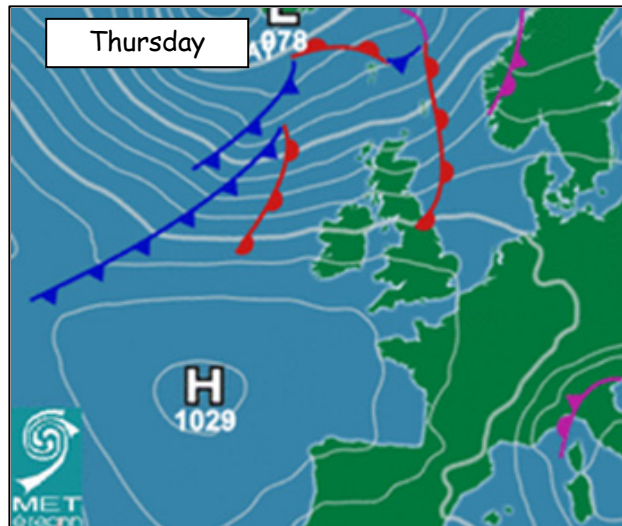


Match each satellite image with the most suitable description below, by writing the correct letter in each case, in the table.

Description	Letter
A factory burning fossil fuels.	
Fjords in Norway.	
Mining in the desert.	
The San Andreas Fault.	
Icebergs breaking from an ice sheet.	

[10m]

11. Weather Charts



Examine the weather chart above and answer the following questions.

(i) What is the barometric pressure (in hectopascals/millibars) to the South West of Ireland? _____

(ii) According to the weather chart, what type of weather is being experienced in France?
Tick the correct box.

Windy	<input type="checkbox"/>
Calm	<input type="checkbox"/>

(iii) Draw the weather chart symbol for a cold front, in the box below.

(iv) Complete the following sentences by inserting the correct word from the table below in each case.

Isobars	Isotherms
---------	-----------

Lines joining places of equal temperature on a weather chart are called

_____.

Lines joining places of equal pressure on a weather chart are called

_____.

[10m]

12. Weather Statistics

Mean monthly temperature and rainfall at Malin Head in 2011

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Annual Mean
Temp °C	5	6	6	10	11	11	13	13	13	11	9	6	9.5
Rainfall mm	89	105	59	66	100	84	49	79	133	177	103	184	102

www.met.ie

Examine the table above showing the mean monthly temperature and rainfall at Malin Head in 2011 and answer the following questions.

- (i) In which month was the lowest temperature recorded? _____
- (ii) For how many months was the highest temperature recorded? _____
- (iii) Which month had the highest amount of rainfall? _____
- (iv) In which month was the lowest rainfall level recorded? _____
- (v) What was the annual mean temperature for 2011? _____

[10m]

PART TWO – STRUCTURED QUESTIONS – 300 MARKS

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

- **TWO** questions from **Section 1 – Core**:
 - **One** question from Questions 1, 2 and 3
 - AND**
 - **One** question from Questions 4, 5 and 6
- **ONE** question from **Section 2 – Electives**

THESE QUESTIONS ARE TO BE ANSWERED IN THE ANSWER BOOK

SECTION 1 – CORE

Questions 1 to 6

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

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

AND

➤ **ONE** from **Regional Geography**

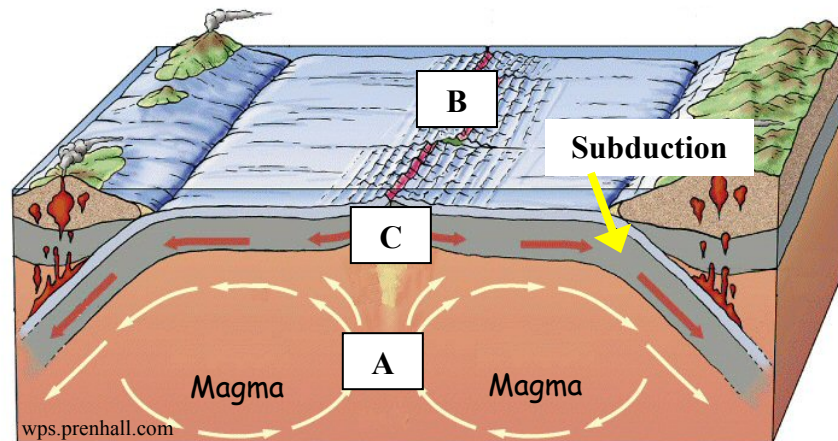
PATTERNS AND PROCESSES IN THE PHYSICAL ENVIRONMENT

Questions 1 to 3

Attempt **ONE** question

Question 1

A. Plate Tectonics



Examine the diagram above and answer the following questions.

- Describe briefly how the currents at **A** move.
- Name the landform at **B** which is found on the sea floor of the Atlantic Ocean.
- Are the plates colliding or separating at **C**?
- Explain briefly the process of subduction.
- Describe briefly the difference between lava and magma.

[30m]

B. Earthquakes

- Name **one** location where an earthquake has occurred.
- Name a scale used to measure the force of an earthquake.
- Describe how earthquakes occur and describe their main effects.

[40m]

C. Human Interaction with the Rock Cycle

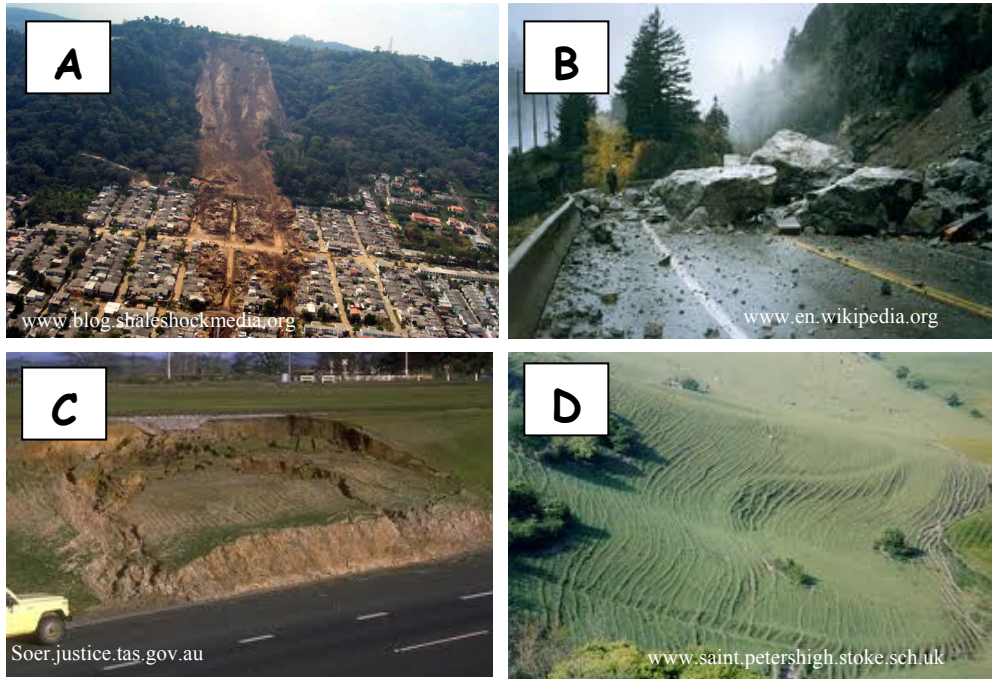
Describe any **one** of the following examples of how humans interact with the rock cycle:

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

[30m]

Question 2

A. Mass Movement



(i) In your answer book, match each of the following examples of mass movement with the letter that best matches it from the images above:

- Soil creep
- Landslide
- Rock fall
- Slumping.

(ii) Explain briefly what is meant by mass movement.

[30m]

B. Rocks

- Name any **two** examples of sedimentary rock.
- Name any **two** uses of the sedimentary rocks named above.
- Describe how sedimentary rock is formed.

[40m]

C. Weathering

Describe and explain any **one** of the following weathering processes that you have studied:

- Freeze Thaw Action
- Carbonation.

[30m]

Question 3

A. Ordnance Survey Map

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

Draw a sketch map of the area shown and on it **show** and **name** the following:

- The River Slaney
- An area of land above 100 metres
- A railway line
- The N11 road
- The built up area of Enniscorthy.

[30m]

B. Human Interaction

Describe and explain how humans attempt to control **one** of the following surface processes:

- River processes
- Sea processes
- Mass movement.

[30m]

C. Surface Processes

Answer (i) or (ii).

- (i) Explain, with the aid of diagrams, the formation of any **two** landforms that you have studied.

OR

- (ii) Describe and explain any **two** processes of mass movement.

[40m]

REGIONAL GEOGRAPHY

Questions 4 to 6

Attempt **ONE** question

Question 4

A. Contrasting Regions in Ireland

Draw a sketch map of Ireland.

On it **show** and **name** the following:

- **Two** contrasting regions in Ireland
- A named town or city in **each** region
- A named river in **each** region.

[30m]

B. European Union Expansion

- (i) Describe the advantages of European Union expansion for Ireland.
- (ii) Describe the disadvantages of European Union expansion for Ireland.

[40m]

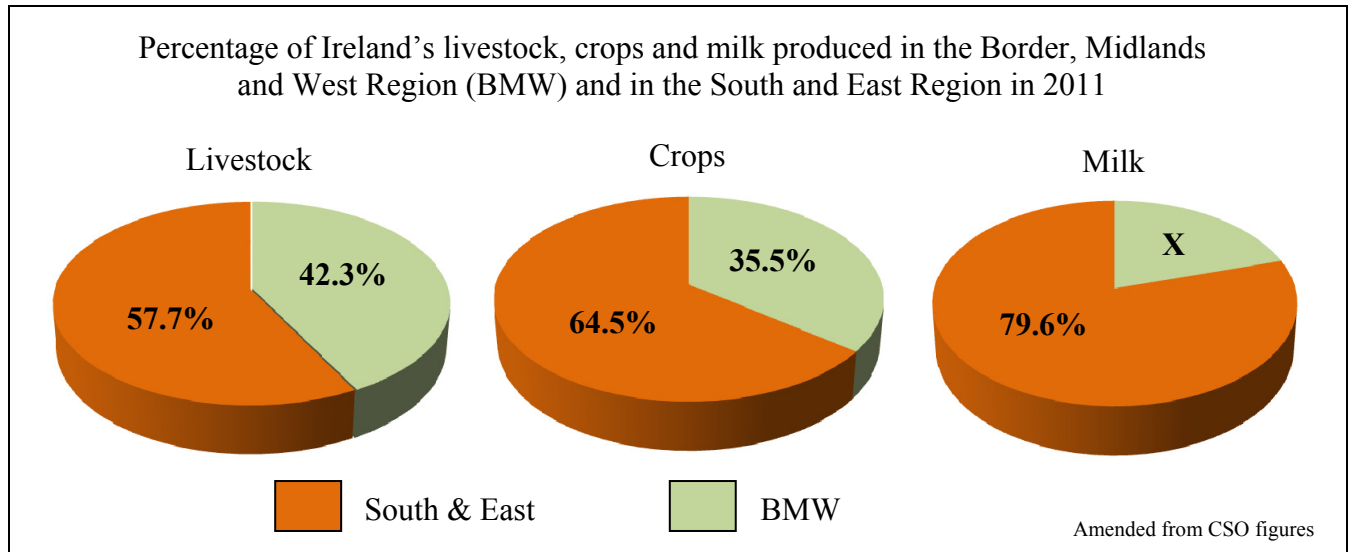
C. European Urban Growth

Name **one** urban area in a **European** region (**not in Ireland**) that you have studied.
Explain **two** reasons for the growth of this urban area.

[30m]

Question 5

A. Agricultural Production – Ireland



Examine the pie charts above showing the percentage of Ireland's livestock, crops and milk produced in the BMW region and the South and East region in 2011 and answer the following questions.

- What percentage of Ireland's livestock was produced in the BMW region?
- Which region produced the most crops?
- Calculate **X**, the percentage of milk produced in the BMW region.
- Name any **two** crops grown in Ireland.
- Explain briefly why agricultural production in the South and East region was greater than agricultural production in the BMW region.

[30m]

B. Agriculture in Europe

Explain how any **two** of the following influence the development of agriculture in a **European** region (**not in Ireland**) that you have studied:

- Relief and Soils
- Climate
- Markets.

[30m]

C. Economic Activities in a Continental / Sub-Continental Region

Name a **Continental / Sub-Continental** region (**not in Europe**) that you have studied and explain any **two** of the following with regard to this region:

- The type of **farming** practised in the region
- The reasons for the development of **industry** in the region
- The reasons why **tourists** are attracted to the region.

[40m]

Question 6

A. Continental / Sub-Continental Region

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

On it **show** and **name** the following:

- **One** named river in the region
- **One** named upland area in the region
- **Two** named towns or cities in the region.

[30m]

B. Agriculture in an Irish Region

Explain how any **two** of the following influence the development of agriculture in an **Irish** region that you have studied:

- Climate
- Relief and Soils
- Markets.

[40m]

C. Cultural Regions

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

- Religion
- Language
- Music/Dance
- Games.

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

[30m]

SECTION 2 – ELECTIVES

Questions 7 to 12

You **MUST** attempt **ONE** question from:

Patterns and Processes in Economic Activities

OR

Patterns and Processes in the Human Environment

PATTERNS AND PROCESSES IN ECONOMIC ACTIVITIES

Questions 7 to 9

Question 7

A. Aerial Photograph

Examine the aerial photograph accompanying this paper.

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

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

- **Two** connecting streets
- An industrial area
- An agricultural area
- A railway bridge
- A river.

[30m]

B. Renewable Energy

- (i) Name **two** sources of renewable energy which are suitable for use in Ireland.
- (ii) Describe and explain why it is important to increase the use of renewable energy.

[30m]

C. Colonisation

- (i) Explain briefly the term colonisation.
- (ii) Name **one** country that was colonised.
- (iii) Describe and explain the impacts of colonisation.

[40m]

Question 8

A. Irish Trade

Ireland's Main Trading Partners 2009 and 2011 (€ millions)

	2009		2011	
	Exports	Imports	Exports	Imports
Great Britain and Northern Ireland	13,511	13,617	15,256	16,446
Other EU countries	37,466	12,889	39,035	13,736
USA	17,585	7,839	18,160	6,488
Rest of World	14,962	10,490	19,514	12,468
Total	83,524	44,835	91,964	49,138

Amended from CSO figures

Examine the table above showing Ireland's main trading partners and the value (in millions of euro) of exports and imports in 2009 and 2011 and answer the following questions.

- (i) What was the total value (in millions of euro) of imports in 2011?
- (ii) From which of the trading partners did Ireland's imports decrease between 2009 and 2011?
- (iii) What was the value (in millions of euro) of Irish exports to the USA in 2011?
- (iv) Calculate the increase in the value (in millions of euro) of Irish exports to the USA between 2009 and 2011.
- (v) Explain briefly why imports and exports are important to the Irish economy.

[30m]

B. Ordnance Survey Map

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

With reference to the Ordnance Survey map, explain **three** reasons why tourists would be attracted to Enniscorthy and the surrounding area.

[30m]

C. Multinational Company (MNC)

- (i) Name **one** multinational company that you have studied and state where it is located.
- (ii) Describe and explain reasons for its present location.

[40m]

Question 9

A. The Irish Construction Industry

Housing Construction in Ireland between 2005 and 2011

Year	No. Houses Built
2005	81,000
2007	78,000
2009	26,000
2011	10,000

Amended from CSO figures

Examine the data above on housing construction in Ireland between 2005 and 2011.

- (i) Using **graph paper**, draw a suitable graph to illustrate this data.
- (ii) In your answer book, explain **one** reason for the decrease in the number of houses built between 2005 and 2011.

[30m]

B. Fossil Fuels

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

[30m]

C. European Union Policy

- (i) Describe the positive impact of European Union policy on Ireland.
- (ii) Describe the negative impact of European Union policy on Ireland.

[40m]

PATTERNS AND PROCESSES IN THE HUMAN ENVIRONMENT

Questions 10 to 12

Question 10

A. Land-Use in Irish Towns

Examine the aerial photograph of Enniscorthy accompanying this paper.

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

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

- The Central Business District (CBD)
- An industrial area
- A residential area
- A religious building
- A river.

[30m]

B. Migration – Rural to Urban

- (i) Describe the push factors which contribute to migration from rural to urban areas.
- (ii) Describe the pull factors which contribute to migration from rural to urban areas.

[40m]

C. Aerial Photograph

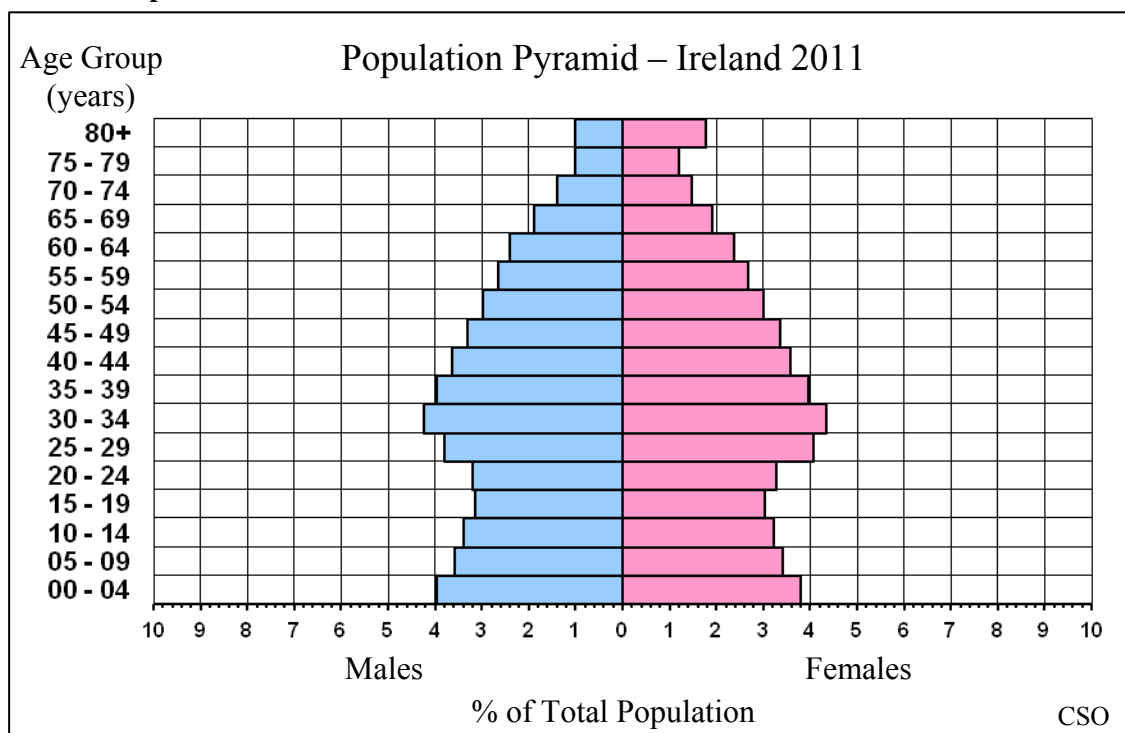
Examine the aerial photograph of Enniscorthy accompanying this paper and answer the following questions.

- (i) Using correct notation (right background, etc.), suggest a suitable location for a new school.
- (ii) Explain **three** reasons why the location you chose in part (i) would be a suitable location for a new school.

[30m]

Question 11

A. Ireland's Population



Examine the population pyramid for Ireland in 2011 and answer the following questions.

- What percentage of the population was male and in the 0 - 4 year age group?
- What percentage of the **total** population was in the 35 - 39 year age group?
- Were there more males or females over 75 years of age?
- Explain briefly **one** way the shape of this population pyramid differs from the shape of a population pyramid for a developing country.
- Name **two** ways population pyramids are used.

[30m]

B. Development of Towns

Using evidence from the Ordnance Survey map **and** the aerial photograph accompanying this paper, explain **three** reasons why the town of Enniscorthy developed at its present location.

[40m]

C. Developing World Cities

Describe and explain the problems caused by the rapid growth of a developing world city that you have studied.

[30m]

Question 12

A. Ireland's Urban Population

Population of a selection of Irish towns in 2011

Town	Population
Saggart, South Dublin	2,100
Ballymahon, Co Longford	1,500
Newcastle, South Dublin	2,600
Courtown Harbour, Co Wexford	2,800

Amended from CSO figures

Examine the data showing the population of a selection of Irish towns in 2011.

- (i) Using **graph paper**, draw a suitable graph to illustrate this data.
- (ii) In your answer book, state **two** reasons for the growth of Irish towns.

[30m]

B. Traffic Congestion

Describe and explain the measures being taken in towns and cities to solve the problem of traffic congestion.

[30m]

C. Patterns in Migration

- (i) Explain **two** reasons why people immigrated (moved in) to Ireland in recent times.
- (ii) Explain **two** reasons why people are now emigrating (moving out) of Ireland in large numbers.

[40m]

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