Coimisiún na Scrúduithe Stáit
State Examinations Commission

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LEAVING CERTIFICATE EXAMINATION 2007

GEOGRAPHY

ORDINARY LEVEL

MARKING SCHEME

Geographical Investigation- Core Unit 3

1. Introduction
   4 SRPs @ **1mark each**
   Conformity with prescribed length– **1mark.**   Total Marks 5

2. Planning
   4 SRPs @ **1mark each**.
   Conformity with prescribed length – **1mark each**   Total Marks 5

3. Gathering of Data
   Two Methods @ **18m each**
   Each method – **9 SRPs @ 2m each. (18 x 2)**   **36 marks**

Coherence – **2 marks graded**	
Conformity with prescribed length – **2marks**	**4 marks**

   Total 40 marks

4. Results, Conclusions, Evaluation [30 marks]
   Three headings @ **8marks each**
   Each heading: **4 SRPs @ 2marks each**

   24 marks

Coherence – **4 graded marks**	
Conformity with prescribed length = **2marks**	**6 marks**

   Total Marks 30

5. Organisation and Presentation of Results
   10 SRPs @ 2marks each

   Total Marks 20

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.

	Answer	Marks
Converging Plates	Plate A	**2**
	Plate B	**2**
Diverging Plates	Plate A	**2**
	Plate B	**2**
Mid-Ocean Ridges Statement	True	**2**

Total Marks 10

2. Karst Regions: Examine the photograph shown above.

		Letter	Number	Marks
(i)	Limestone			**2**
(ii)	Correct location named			**2**
(iii)	Clints and Grikes	**A**	**2 or 3**	**2**
	Cave	**B**	**1 or 4**	**2**
	Stalactite	**C**	**1 or 4**	**2**
	Limestone Pavement	**D**	**3**	

Total Marks 10

3. Coastal Processes: Examine the photograph above and then pair each of the **landforms** in the table below with the correct **letter** in the diagram.

(i)	Landform	Letter	Marks
	Sea Arch	**B**	2
	Sea Cave	**C**	2
	Sea Stack/Stump	**A**	2
	Blow Hole	**D**	2
(ii)			
	False		2

Total Marks 10

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

Letter	Number	Marks
B	**1**	3
C	**3**	3
D	**2**	3
All Correct		1

Total Marks 10

5. Ordnance Survey

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

Distance	Marks
6.5-8 km/4-5mls	10

OR

Calculate (in square kilometres) the approximate area of: The entire map extract:

Area	Marks
108sqkm	10

Total Marks 10

6. **Aerial Photograph:** Examine the aerial photograph of Drogheda that accompanies this paper.

	Answer	Marks
(i)	Oblique	**2**
(ii)	Correct location	**2**
	Correct Location	**2**
(iii)	Correct Season	**2**
	Evidence stated	**2**

Total Marks 10

7. Weather Charts

(i)	**Types of Fronts**	**Letter**	**Marks**
	Warm Front	**A**	**2**
	Cold Front	**C**	**2**
	Occluded Front	**B**	**2**
(ii)			
	Job/Occupation 1		**2**
	Job/Occupation 2		**2**

Total Marks 10

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

	Answer	Marks
(a)	Transport	**2**
(b)	2.8	**2**
	24	**2**
	15.3	**2**
(c)	Damage named	**2**

Total Marks 10

9. Physical Features on Maps and Photographs: Study the map and photograph extracts below and answer the questions.

	Answer	Marks
(i)	Beach/Sand Dunes/Bar	**2**
(ii)	Bay/Cove/Headland/Geo/Cliff	**2**
(iii)	Corrie/Cirque	**2**
(iv)	False	**2**
	All Correct	**2**

Total Marks 10

10. Earthquakes

	Answer	Marks
(i)	1990	**2**
	Iran	**2**
(ii)	1989	**2**
	Mexico	**2**
(iii)	Seismograph/ Seismometer	**2**

Total Marks 10

11. Ireland's Climate

	Answer	Marks
(i)	Cool Temperate Oceanic	**2**
(ii)	True	**2**
(iii)	Advantage 1	**3**
	Advantage 2	**3**

Total Marks 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	Marks
Meander	River	2
Arête	Ice	2
Tombolo	Sea	2
Plunge Pool	River	0
Drumlin	Ice	2
Sea/Sand Spit	Sea	2

Total Marks 10

PART TWO – STRUCTURED QUESTIONS – 300 MARKS

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

- **Two** questions from Section 1
- **One** question from Section 2

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

Question 1

A.   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)

Scheme:

Draw a sketch Map =   **5 Marks graded**

- **Limits/frame =**   **1 marks**
- **Proportions (landscape) =**   **2 marks graded**
- **Overall impression =**   **2 marks graded**

For an obvious tracing allow 50% of marks obtained for the features BUT 0 marks out of the 5 for sketch map.

Mark and identify 5 items @   **5 marks graded**

Showing =   **3 marks graded**
Naming/identifying   **2 marks**

Total Marks 30

B.   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)

Scheme
Formation of any two Irish landforms @ 20 marks =   40 marks

For each landform:
Formation by processes explained @   20 marks each
Landform Named =   2 marks
Diagram
Two SRPs   3 marks each   6 marks
Formation of landform explained
4 SRPs @   3 marks each   12 marks
(At least one SRP must explain a relevant process)
(Allow named Irish example for one SRP.)

Total Marks 40

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

(30 Marks)

Scheme
One way in which humans have an effect on processes @ 30 marks graded.
Way named =   2 marks
Naming a process   2 marks
Way explained/described.
8 SRPs @   3m each   24 marks
Any valid example   2 marks

Total Marks 30

Question 2

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

(30 Marks)

Scheme
Explain the process of Freeze-Thaws @   **30 graded**
Ten SRPs @   3 marks each   **30 marks**

Total 30 marks

B.
(i)   Name **one** type of **igneous rock**.
Scheme
(i)   Correctly naming one type of Igneous   **3 marks**

(ii)   Name **one Irish location** for this type of rock.
Scheme
(ii)   Correct location   **3 marks**

(iii)   Explain **in detail** how this **rock was formed**.

Scheme
(iii)   Explain in detail how this rock was formed
         8 SRPs @ 3 marks each   **24 marks graded**
                                                              (30 marks)

Total marks 30

C.   Humans interact with the rock cycle in many ways among these are:

- 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)
Scheme
Naming Way   **5 marks**
Example   **5 marks**
Explanation Ten SRPs @ 3 marks each   **30 marks**

Total marks 40

Question 3

A.   The table below shows the heights of some well known volcanoes around the world. Use graph paper to draw a graph that shows the data in the table above.

(30 marks)

Scheme
Drawing graph @ 30 marks graded.
Vertical Axis labelled - Circle   3 marks graded
Horizontal Axis labelled - Centred   3 marks graded
Six Items @   4 marks each graded   24 marks

Total marks 30

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

(40 marks)

Scheme
Explaining the Theory of Plate Tectonics. @   40 marks graded
Showing an understanding of the Theory   1 marks
13 SRPs @   3 marks each   39 marks
Total marks 40

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

(30 Marks)

Scheme
Two effects of earthquakes @   15 marks   30 marks
Name the effect   3 marks
Explaining the reason
4 SRPs @   3 marks each   12 marks

        (Allow one SRP for named example)

                                                                            Total marks 30

Question 4

A.   Draw a sketch map of Ireland
- **Two** Contrasting Regions
- **One** named mountain **or one** named river in each region

(30 Marks)

Scheme

Sketch Map of Ireland =		**6 Marks graded**

Mark and identify 4 items @ 6 marks graded

Region 1	**Named**	**2 marks**
	Shown	**4 marks graded**
Region 2	**Named**	**2 marks**
	Shown	**4 marks graded**
Mountain/River 1	**Named**	**2 marks**
	Shown	**4 marks graded**
Mountain/River 2	**Named**	**2 marks**
	Shown	**4 marks graded**

Total marks 30

B.   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)

Scheme

Naming the Irish region	**4 marks**
Two factors which influence Agriculture/Industrial @ 18 marks =	**36 marks**
Stating the factor	**3 marks**
Each factor explained	
5 SRPs @ 3 marks each	**15 marks**

Total Marks 40

C. 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)

Scheme
Naming the region		**6 marks**
Two problems @	**12 marks**	**24 marks**
State the problem		**3 marks**
Explaining the reason		
3 SRPs @	**3 marks each**	**9 marks**

Total marks 30

Question 5

A.   The data shown here refers to New Irish Vehicles Registered from 2001 to 2006.
                                                                                       (30 marks)
Scheme
(i)   **173, 273**   **6 marks**
(ii) **2,881**   **6 marks**
(iii) **184,087**   **6 marks**
(iv) **Tractors**   **6 marks**
(v)   **2003**   **6 marks**

                                                                   Total marks 30

B.   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)

Scheme
Naming the European region   **4 marks**
Two influences of <u>climate</u> on Agriculture <u>or</u> Tourism @ 18 marks =   36 marks
Naming the climatic factor   **3 marks**
Each factor explained
        5 SRPs @   **3 marks each**   **15 marks**
                                                                   Total Marks 40

C.   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)
Scheme
Naming the region   **3 marks**
Describing the importance of Agriculture or Tourism.
9 SRPs @   **3 marks each**   **27 marks**

                                                                   Total marks 30

QUESTION 6

A.   The following table shows the employment figures in thousands by sector for Ireland in May 2006.Use graph paper to draw a graph that shows the data in the table above.

(30 marks)

Scheme
Drawing graph @ 30 marks graded.
Vertical Axis labelled - Circle	**3 marks graded**
Horizontal Axis labelled - Centred	**2 marks graded**
5 Items @ 5 marks each graded	**25 marks**

Total marks 30

B.   There are many types of regions on the earth's surface among these are:

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

(i)   Give a named **European–Not Irish-**example of any **two** of the regions listed above.

Scheme
Naming region 1	**2 marks graded**
Naming region 2	**2 marks graded**

(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

Scheme
Naming the region	**3 marks**
Stating the problem	**3 marks**
Explaining the problem faced by that region	
10 SRPs @ 3 marks each	**30 marks**

Total marks 40

C.   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)

Scheme
Naming the region(s)   **2 marks graded**
Two factors   **@ 14 marks =**   **28 marks**
Naming the factor   **2 marks**
Each factor explained
      4 SRPs @   **3 marks each**   **12 marks**

Total marks 30

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.   Examine the **1:50000 ordnance survey** map extract accompanying this paper. Imagine you have the task of finding a suitable location for a shopping centre.
                                                                    (30 Marks)
          (i)   State clearly where you would locate a new shopping centre by **grid reference**.

Scheme
State location using correct notation   **6 marks**

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

Scheme
Explain one reason FOR and one AGAINST the location @ 24 marks (12+12)
  Reason Stated   **3 marks**
  Reason Explained
  Three SRPs @   **3 marks each**   **9 marks**
                                                           Total Marks 30

B.   Many multinational companies (MNCs) have set up in Ireland in recent years.
                                                                    (30 Marks)
          (i)   Name **one** multinational company studied by you.

Scheme
Naming one multinational company   **6 marks**

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

Scheme
Reason named   **3 marks**
Reason Explained
Three SRPs @   **3 marks each**   **9 marks**

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

Scheme
Reason named   **3 marks**
Reason Explained

Three SRPs @   **3 marks each**   **9 marks**

Total Marks 30

   C.   Study this satellite photograph of an industrial estate near Galway city. Explain **two** reasons why these estates are attractive as a location for companies.

                                                                           (40 marks)

Scheme
Two reasons explained @ 20 marks each graded =   **40 marks**
Each 20
Reason stated   **5 marks**
Reason explained
     5 SRPs @   **3 marks each**   **15 marks**

Total Marks 40

Question 8

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

                                                            (30 Marks)
Scheme
(i)   Australia   6 marks
(ii)   United States   6 marks
(iii) a.   Luxemburg   6 marks
**   b.   Australia   6 marks**
(iv)   32,868   6 marks
                                                            Total marks 30

B. The European Union has many policies which have important effects on the Irish economy among these are:
- The CAP (Common Agriculture Policy)
- The RDF (Regional Development Fund)
- The CFP (Common Fisheries Policy)

                                                            (30 Marks)
Scheme
Two effects on Ireland's economy   @ 15 marks =   30 marks
Effect Named   3 marks
Effect Explained
**   4 SRPs @   3 marks each   12 marks**
                                                            Total marks 30

C. 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)
Scheme
Naming the region   4 marks
Two problems faced by the country/region @ 18 marks =   36 marks
Stating the factor   3 marks
Each factor explained
**   5 SRPs @   3 marks each   15 marks**

                                                            Total Marks 40

Question 9

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

                                                                        (30 Marks)

Scheme
Drawing graph @ 30 marks graded.
Scheme
Vertical Axis labelled - Circle   **3 marks graded**
Horizontal Axis labelled - Centred   **2 marks graded**
Five Items @   5 marks each graded   **25 marks**

                                                                        Total 30 marks

B.   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.

Scheme
Two effects @ 10 marks graded   **20 marks**
Naming effect   **4 marks**
Explaining Effects
2 SRPs @ 3 marks each   **6 marks**

(ii)   Describe **two** actions which could be taken to reduce these effects.

Scheme
Two actions @ 10 marks graded   **20 marks**
Naming action   **4 marks**
Explaining Effects
2 SRPs @ 3 marks each   **6 marks**

                                                                        Total marks 40

C.   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)

Scheme

Two concerns	**@ 15 marks =**	**30 marks**
Naming the concern		**3 marks**
Each factor explained		
4 SRPs @	**3 marks each**	**12 marks**

Question 10

A.   Examine the **aerial photograph** accompanying this paper.
     Draw a sketch map of the area shown in 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)

Scheme:
Draw a sketch Map = 5 Marks graded

- **Limits/frame =**   **1 marks**
- **Proportions (landscape) =**   **2 marks graded**
- **Overall impression =**   **2 marks graded**

**For an obvious tracing allow 50% of marks obtained for the features BUT 0 marks
out of the 5 for sketch map.**

Mark and identify 5 items @ 5 marks graded

Showing =   **3 marks graded**
Naming/identifying   **2 marks**

Total Marks 30

B.   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)

Scheme
Two reasons explained @ 20 marks each graded =   40 marks
Each 20
Reason stated   5 marks
Reason explained
  4 SRPs @   3 marks each   12 marks
  Correct grid reference or valid location   3 marks

Total Marks 40

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

(30 Marks)

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

Scheme
Named city   3 marks
Two causes @ 9 marks each graded   18 marks
Naming cause   3 marks
Explaining cause
2 SRPs @ 3 marks each   6 marks
                                                          (Sub Total 21)

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

Scheme
One solution @ 9 marks graded
Naming solution   3 marks
Explaining solution
2 SRPs @ 3 marks each   6 marks
                                                          (Sub Total 9)

Total marks 30

Question 11

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

 (i)   **5.3 million**   **10 marks**

(ii)   **One million ("one in five")**   **10 marks**

(iii)   **2050**   **10 marks**

                                                                               Total marks 30

B.   The Chart below refers to Population Decline in Mayo between 1986 and 1996.
                                                                                              (30 Marks)
Scheme

        (i)   **Belmullet**   **5 marks**

        (ii)   **6.2%**   **5 marks**

        (iii)   **Two reasons @ 10 marks each graded**   **20 marks**
                 Naming reason   **4 marks**
                 Explaining reason
                 Two SRPs @ 3 marks each   **6 marks**

                                                                               Total marks 30

C.

        Explain any **two** reasons why migrants might be forced to leave their native
        (home) countries.
                                                                                              (40 marks)
Scheme
Two reasons explained @ 20 marks each graded =   40 marks
Each 20
Reason stated   5 marks
Reason explained
        5 SRPs @   3 marks each   15 marks
                        (Allow one SRP for named example)

                                                                               Total Marks 40

Question 12

A.   Examine the population pyramid for Ireland shown above.

                                                                                        (30 marks)
Scheme
          (i)   **15-19**   **10 marks**

          (ii)   **25-40 Thousand**   **10 marks**

          (iii)   **Naming difference**   **10 marks**

                                                                                        Total marks 30

B.   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)**
Scheme
Two reasons explained @ 15 marks each =   **30 marks**
Reason named   **3 marks**
Explaining the reason
          4 SRPs   **3 marks each**   **12 marks**
                              (Allow one SRP for named example)

                                                                                        Total marks 30

C.   Examine the **1:50000 ordnance survey** map extract accompanying this paper.
          This map shows many examples of historic settlement (antiquities).
                                                                                        (40 MARKS)
   •   **Name** and give the **location** of any **two** examples of historic settlement
       (antiquities) by grid reference.

	Name	**Location**
Historic Settlement 1	**5m**	**6m**
Historic Settlement 1	**5m**	**6m**

                                                                                        (Sub Total 22)

   •   Write a brief description of **each** examples of historic settlement (antiquities)
       named above.
Scheme
Brief description of each historic settlement @ 9 marks each   **18 marks**
Each
          3 SRPs @ 3 marks each   **9 marks**
                                                                                        (Sub Total 18)
                                                                                        Total marks 40