



**Coimisiún na Scrúduithe Stáit**  
**State Examinations Commission**

**Leaving Certificate 2015**

**Marking Scheme**

**Geography**

**Higher Level**

### **Note to teachers and students on the use of published marking schemes**

Marking schemes published by the State Examinations Commission are not intended to be standalone documents. They are an essential resource for examiners who receive training in the correct interpretation and application of the scheme. This training involves, among other things, marking samples of student work and discussing the marks awarded, so as to clarify the correct application of the scheme. The work of examiners is subsequently monitored by Advising Examiners to ensure consistent and accurate application of the marking scheme. This process is overseen by the Chief Examiner, usually assisted by a Chief Advising Examiner. The Chief Examiner is the final authority regarding whether or not the marking scheme has been correctly applied to any piece of candidate work.

Marking schemes are working documents. While a draft marking scheme is prepared in advance of the examination, the scheme is not finalised until examiners have applied it to candidates' work and the feedback from all examiners has been collated and considered in light of the full range of responses of candidates, the overall level of difficulty of the examination and the need to maintain consistency in standards from year to year. This published document contains the finalised scheme, as it was applied to all candidates' work.

In the case of marking schemes that include model solutions or answers, it should be noted that these are not intended to be exhaustive. Variations and alternatives may also be acceptable. Examiners must consider all answers on their merits, and will have consulted with their Advising Examiners when in doubt.

### **Future Marking Schemes**

Assumptions about future marking schemes on the basis of past schemes should be avoided. While the underlying assessment principles remain the same, the details of the marking of a particular type of question may change in the context of the contribution of that question to the overall examination in a given year. The Chief Examiner in any given year has the responsibility to determine how best to ensure the fair and accurate assessment of candidates' work and to ensure consistency in the standard of the assessment from year to year. Accordingly, aspects of the structure, detail and application of the marking scheme for a particular examination are subject to change from one year to the next without notice.

In considering this marking scheme, the following should be noted:

- The detail required in any answer is determined by the context and the manner in which the question is asked and by the number of marks assigned to the answer in the examination paper.
- Words, expressions or phrases must be correctly used in context and not contradicted, and where there is evidence of incorrect use or contradiction, the marks may not be awarded.
- As a general rule, if in doubt about the validity of any answer, examiners must consult their advising examiner before awarding marks.
- The suggestions, examples etc. in the scheme are not exhaustive and alternative valid answers etc. may be acceptable.
- For the purpose of marking a Significant Relevant Point (SRP) is a single piece of factual information, to which an examiner will assign a mark weighting as prescribed in the marking scheme (typically 2 marks). As previously advised in Circular S85/09 and in the Sample Marking Indicators available on the SEC website each SRP should emerge from the information put forward by the candidate, leading to an overall coherent response to the question.

## PART ONE – SHORT-ANSWER QUESTIONS – 80 MARKS

Attempt any TEN questions.

All questions carry equal marks.

**THESE QUESTIONS ARE TO BE ANSWERED IN THE SPACES PROVIDED**

Any 10 questions @ 8 marks each.

Q.1, 2, 6: 8 @ 1m each

Q.3, 4, 5, 7, 8, 9, 12: 4 @ 2m each

Q.10: 6 @ 1 mark (ii) 1m + 1m

Q.11: 3 @ 2m each (iv) 1m + 1m

No grading.

- Q.1 C Plutonic  
A Volcanic  
D Plutonic  
B Volcanic
- Q.2 C Erosion  
A Erosion  
D Deposition  
B Erosion
- Q.3 (i) False  
(ii) True  
(iii) False  
(iv) False
- Q.4 (i) False  
(ii) True  
(iii) False  
(iv) False
- Q.5 (i) Divergent/Constructive  
(ii) Ocean Ridge, Mid-Ocean ridge  
(iii) Any valid extrusive igneous rock  
e.g. Basalt  
(iv) Asthenosphere
- Q.6 (i) D Rotational slump  
A Soil creep  
B Landslide  
C Mudflow  
(ii) Gravity, slope, vegetation,  
precipitation, water content etc.  
(iii) Any two valid examples
- Q.7 (i) 6.1 – 6.4 km  
(ii) 6 - 8 km<sup>2</sup>  
(iii) Any valid statement  
(iv) Any valid species named
- Q.8 (i) V 909-911 711-713  
(ii) South or South South West  
(iii) N71  
(iv) Any valid statement
- Q.9 (i) N71  
(ii) The Kerry Way (Sli Uibh Rathacht)  
(iii) Cummeenboy  
(iv) 395 - 405m
- Q.10 (i) F Trellis  
B Even slope  
C Dendritic drainage  
A Concave slope  
D Drumlin  
E Cut-off meander  
(ii) Any valid explanation
- Q.11 (i) 5,371(hectares)  
(ii) 4,352 hectares  
(iii) Increase/rise etc.  
(iv) Any valid explanation
- Q.12 D Delta  
B Open-cast mining  
A Dust storm  
C Forest fire

**PART TWO – STRUCTURED and ESSAY QUESTIONS – 320 MARKS**

You must attempt **FOUR** 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**
- **ONE** question from **Section 3 – Options**

***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**

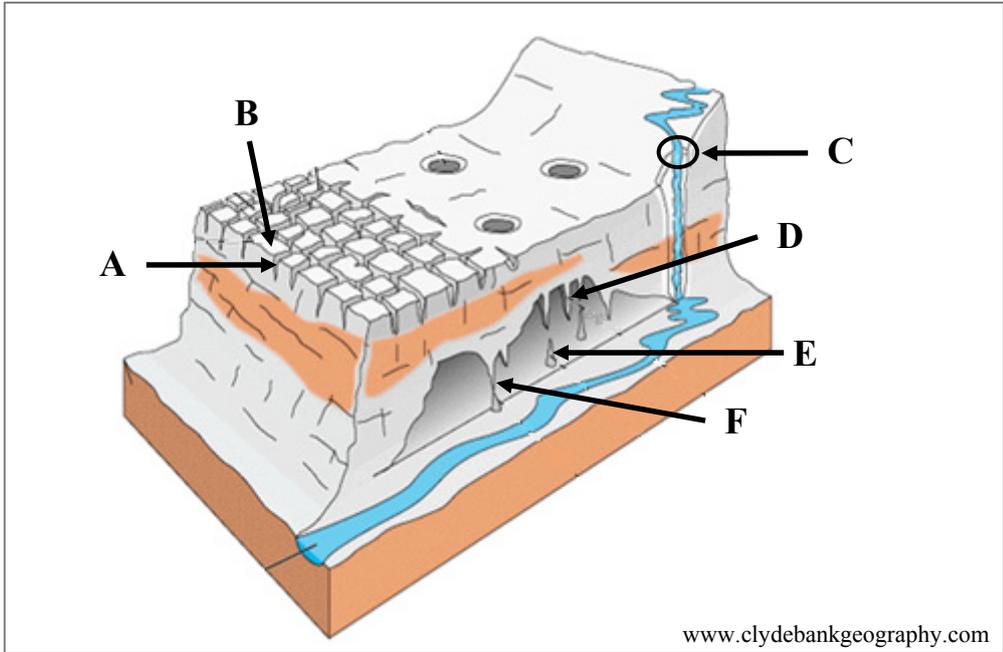
**PATTERNS AND PROCESSES IN THE PHYSICAL ENVIRONMENT**

**Questions 1 to 3**

Attempt **ONE** question

**Question 1**

**A. Karst Landscapes**



Examine the diagram above and answer each of the following questions.

- (i) Name each of the landforms **A, B, C, D, E** and **F**.
- (ii) Name any **two** processes of chemical weathering.
- (iii) State what is meant by the term *permeable rock* and name an example of a permeable rock.

**[20m]**

- |       |                               |                         |             |
|-------|-------------------------------|-------------------------|-------------|
| (i)   | <b>A</b>                      | Grike                   | 2 marks     |
|       | <b>B</b>                      | Clint                   | 2 marks     |
|       | <b>C</b>                      | Swallow Hole /Sink Hole | 2 marks     |
|       | <b>D</b>                      | Stalactite              | 2 marks     |
|       | <b>E</b>                      | Stalagmite              | 2 marks     |
|       | <b>F</b>                      | Pillar/Column           | 2 marks     |
|       |                               |                         |             |
| (ii)  | Any two valid processes       |                         | 2 + 2 marks |
| (iii) | Any valid statement & example |                         | 2 + 2 marks |

## B. Surface Processes

Answer (i) or (ii).

- (i) Examine the impact of the **processes of erosion** on the formation of **one** fluvial, coastal or glacial landform that you have studied.

[30m]

Processes of erosion named	2 + 2 marks
Landform of erosion named	2 marks
Examination	12 x SRPs

- All extra processes require examination with reference to formation.
- Question based on the impact of processes of erosion on the formation of the landform.
- Allow 1 x SRP for named example of landform.
- Credit relevant labelled diagram for 1 x SRP.
- Diagram without labelling 0 marks.
- Credit extra relevant information on labelled diagram for 2 x SRPs.
- Credit a max of 2 x SRPs if merely a description of landform without a reference to the impact of the processes of erosion on formation.
- Question not tied to Ireland.

Or

- (ii) Describe and explain the **factors governing the operation** of **one** mass movement process that you have studied.

[30m]

Factors identified	2 + 2 marks
Mass movement process named	2 marks
Description/explanation	12 x SRPs

- All further factors require description/explanation.
- Credit relevant labelled diagram for 1 x SRP.
- Diagram without labelling 0 marks.
- Credit extra relevant information on labelled diagram for 2 x SRPs.
- Credit a max of 2 x SRPs if merely a description of mass movement with no reference to factors governing its operation.
- Credit 1 x SRP for example of the named mass movement process.

### C. Tectonic Activity – Irish Landscape Development

Examine the influence of tectonic activity on the development of the Irish landscape.

[30m]

Tectonic activity identified	2 marks
Examination	14 x SRPs

- Credit 2<sup>nd</sup> tectonic activity identified for 1 x SRP from examination.
- Credit 2 x SRPs for named Irish examples.
- Question is tied to Ireland.
- Credit 1 x SRP for relevant labelled diagram.
- Credit extra relevant information on labelled diagram for 2 x SRPs.
- Diagram without labelling 0 marks.
- Max 2 x SRPs for description of relevant landscape without reference to tectonic activity.
- Max 2 x SRPs for examination of tectonic activity without reference to the Irish landscape.

## Question 2

### A. Ordnance Survey Map

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

Draw a sketch map of the area shown to half scale.

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

- The entire route of the waymarked walk called the *Béara Way* shown on the map
- The entire area of coniferous plantation at V 85 72
- The entire area of land above 300 metres at *Letter South*
- The entire area of the *Kenmare River* shown on the map.

[20m]

Sketch outline: 4 marks

4 features @ 4 marks each: Shown 3 marks (graded 3/1/0)

Label 1 mark

- If sketch is traced or only a section of the map is drawn, lose 4 marks for sketch outline and lose 3 marks for showing per item. Allow labelling marks only.
- Sketch outline means to half scale. Required size is 9 cm x 12 cm but allow a difference of 0.5 cm on each side.
- If aerial photograph is used instead of Ordnance Survey map 0 marks.

## B. Sedimentary Rocks

Explain the formation of sedimentary rocks, with reference to Irish examples.

[30m]

Irish examples of sedimentary rocks    2 + 2 marks  
Explanation of formation                    13 x SRPs

- Credit relevant labelled diagram for 1 x SRP.
- Credit extra relevant information on labelled diagram for 2 x SRPs.
- Diagram without labelling 0 marks.
- Credit 2 named associated Irish locations for 2 x SRPs from the explanation. Location must be linked to named rock.
- Max 2 x SRPs if merely a description of sedimentary rocks with no reference to formation.
- The examination need not be confined to the two named rocks. A general account of the formation of sedimentary rocks is acceptable.
- The focus of the question is on the formation of sedimentary rock.

## C. Isostasy

Examine how isostasy has impacted on the Irish landscape.

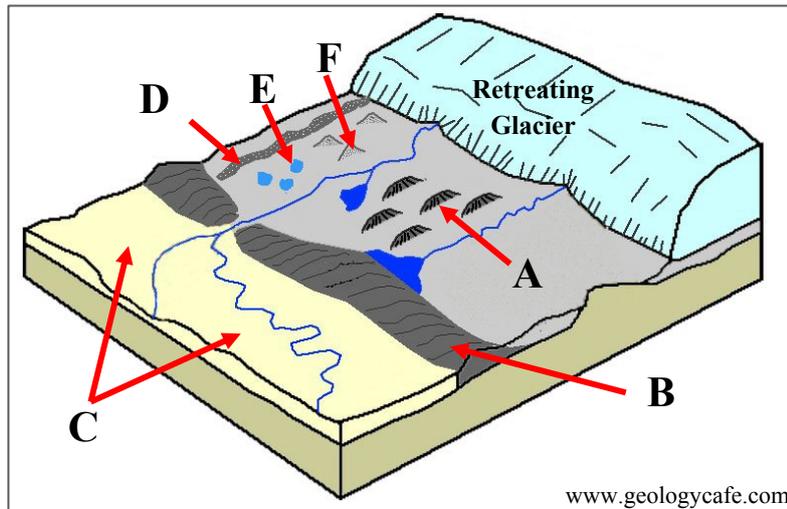
[30m]

Impact identified                                2 marks  
Examination                                        14 x SRPs

- Credit 2<sup>nd</sup> impact identified for 1 x SRP from examination. All further impacts require examination.
- Credit two named Irish examples for 2 x SRPs from examination.
- Credit 1 x SRP for relevant labelled diagram.
- Credit extra relevant information on labelled diagram for 2 x SRPs.
- Diagram without labelling 0 marks.
- Accept features of coastal emergence and features of rejuvenation.
- Question is tied to Ireland.
- Max 2 x SRPs if merely a description of isostasy with no reference to impact on Irish landscape.

### Question 3

#### A. Glaciation



Examine the diagram above and answer each of the following questions.

- (i) Name each of the landforms **A, B, C, D, E** and **F**.
- (ii) Explain briefly what is meant by a *fluvioglacial process*.
- (iii) Name any **two** fluvioglacial landforms.

[20m]

- |       |                                |                  |             |
|-------|--------------------------------|------------------|-------------|
| (i)   | <b>A</b>                       | Drumlin          | 2 marks     |
|       | <b>B</b>                       | Terminal moraine | 2 marks     |
|       | <b>C</b>                       | Outwash plain    | 2 marks     |
|       | <b>D</b>                       | Esker            | 2 marks     |
|       | <b>E</b>                       | Kettle hole      | 2 marks     |
|       | <b>F</b>                       | Kame             | 2 marks     |
| (ii)  | Any valid explanation          |                  | 2 + 2 marks |
| (iii) | Any <b>two</b> valid landforms |                  | 2 + 2 marks |

## B. Landform Development

Explain how **one** of the following influences the development of landforms:

- Folding
- Faulting.

[30m]

Landform identified

2 marks

Explanation

14 x SRPs

- Credit 2<sup>nd</sup> landform identified for 1 x SRP from explanation.
- Credit 2 x SRPs for examples.
- Credit relevant labelled diagram for 1 x SRP.
- Credit extra relevant information on labelled diagram for 2 x SRPs.
- Diagram without labelling 0 marks.
- Question not tied to Ireland.
- Max 2 x SRPs if merely a description of folding/faulting with no reference to landform development.

## C. Human Interaction with the Rock Cycle

Examine how humans interact with the rock cycle, with reference to **one** of the following:

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

[30m]

Examination

15 x SRPs

- Credit 2 x SRPs for examples from examination.
- Credit relevant labelled diagram for 1 x SRP.
- Credit extra relevant information on labelled diagram for 2 x SRPs.
- Diagram without labelling 0 marks.
- Question not tied to Ireland.
- Discussion may positive or negative.

## REGIONAL GEOGRAPHY

### Questions 4 to 6

Attempt **ONE** question

#### Question 4

##### A. Map Skills

Draw an outline map of a **European** region (not in Ireland) that you have studied.

On it, show and name each of the following:

- A named feature of relief
- A named urban centre
- A named road or rail link
- A named river.

[20m]

Map outline

4 marks graded (4/2/0)

4 features @ 4 marks each:

Shown 2 marks graded (2/1/0)

Named 2 marks

- Do not accept Irish or Continental/Sub Continental region.
- Accept any valid type of urban centre irrespective of size.
- If features not shown or incorrectly shown naming marks can be given.

## B. Industrial Decline

Examine the causes and impacts of industrial decline with reference to any region(s) that you have studied.

[30m]

Cause identified	2 marks
Impact identified	2 marks
Examination	13 x SRPs

- Credit 2<sup>nd</sup> cause identified for 1 x SRP from examination. All further causes require examination.
- Credit 2<sup>nd</sup> impact identified for 1 x SRP from examination. All further impacts require examination.
- Credit 1 x SRP for example of an industry in decline.
- Examination without reference to named or clearly inferred region 0 marks.
- Max 7 x SRPs if causes only or impacts only examined.
- A valid labelled sketch map can receive 1 x SRP from examination and if extra relevant information on the sketch, it can receive a further 1 x SRP.

## C. Tertiary Activity in Ireland

Account for the development of transport **or** tourism in an **Irish** region that you have studied.

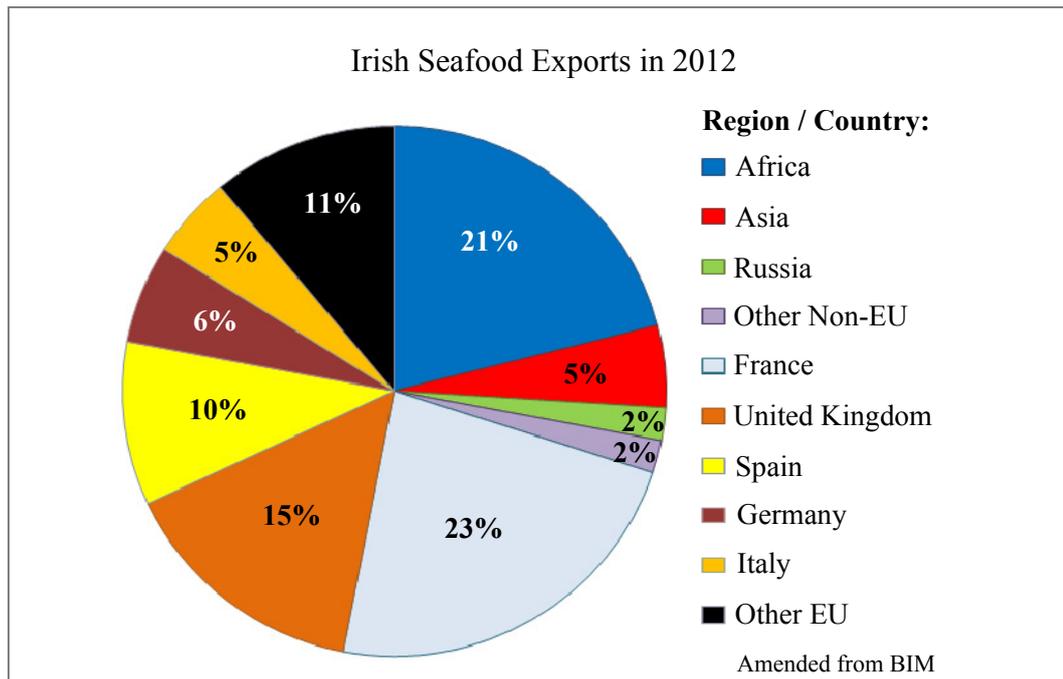
[30m]

Examination	15 x SRPs
-------------	-----------

- Do not accept European or Continental/Sub-Continental region.
- Examination without reference to named or clearly inferred region 0 marks.
- Credit 2 x SRPs for Irish examples.
- Credit factors influencing the development of transport **or** tourism for 2 x SRPs from examination. All further factors require examination.
- Max 2 x SRPs if merely a description of transport **or** tourism with no accounting for its development.
- A valid labelled sketch map can receive 1 x SRP from examination and if extra relevant information on the sketch, it can receive a further 1 x SRP.
- Positive or negative interpretation of development is acceptable.

## Question 5

### A. Irish Seafood Exports



Using the information in the pie chart above, answer each of the following questions.

- (i) Name the **two** European Union (EU) member states to which Ireland exported the most seafood in 2012.
- (ii) Name the **two** regions/countries to which Ireland exported the least seafood in 2012.
- (iii) Calculate the **total** percentage of seafood exports to non-EU regions/countries in 2012.
- (iv) Explain briefly **two** challenges facing the Irish fishing industry.

[20m]

- |       |   |             |
|-------|---|-------------|
| (i)   | France & United Kingdom                           | 2 + 2 marks |
| (ii)  | Russia & Other Non-EU                             | 2 + 2 marks |
| (iii) | 30 (%)  | 4 marks     |
| (iv)  | Any two valid challenges explained @ 4 marks each | 2 + 2 marks |
|       |   | 2 + 2 marks |

## B. Manufacturing in a European Region

Account for the development of manufacturing in a **European** region (not in Ireland) that you have studied.

[30m]

Examination 15 x SRPs

- Do not accept Irish or Continental/Sub-Continental region.
- Discussion without link to named or clearly inferred European region 0 marks.
- Credit 2 x SRPs for examples of manufacturing from examination.
- Credit factors influencing the development of manufacturing for 2 x SRPs from examination. All further factors require examination.
- Positive or negative interpretation of development is acceptable.
- A valid labelled sketch map can receive 1 x SRP from examination and if extra relevant information on the sketch, it can receive a further 1 x SRP.
- Max 2 x SRPs if merely a description of manufacturing with no reference to development.

## C. The Dynamics of Regions – Human Processes

Population dynamics	Language	Religion
Urban development	Rural development	

Examine the influence of any **two** of the human processes in the table above, on the development of a **Continental / Sub-Continental** region (not in Europe) that you have studied.

[30m]

Process 1

Influence identified 2 marks  
Examination 7 x SRPs

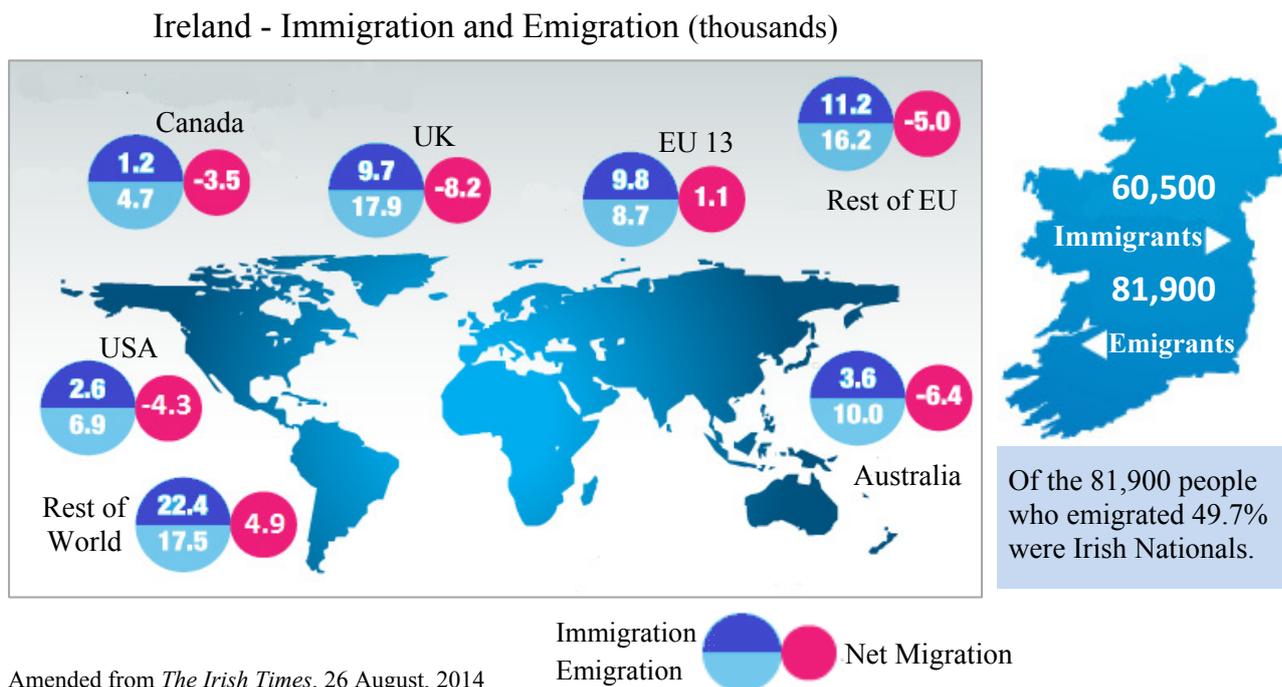
Process 2

Influence identified 2 marks  
Examination 6 x SRPs

- Do not accept Irish or European region.
- Discussion without link to a named or clearly inferred region 0 marks.
- Max 7 x SRPs if only one process discussed.
- Credit 2 x SRPs for specific examples of human processes.
- Accept a positive or negative interpretation of development.
- A valid labelled sketch map can receive 1 x SRP from examination and if extra relevant information on the sketch, it can receive a further 1 x SRP.

## Question 6

### A. Irish Population Dynamics



Examine the information above regarding immigration to Ireland and emigration from Ireland, in thousands, in the 12 months to April 2014 and answer each of the following questions.

- (i) How many people immigrated to Ireland from Canada and how many people emigrated to Canada from Ireland?
- (ii) How many immigrants came from the 'Rest of the World'? Name **one** example of a country from within this area.
- (iii) What percentage of the 81,900 people that emigrated from Ireland were not Irish Nationals? State **one** reason why they emigrated from Ireland.
- (iv) Explain briefly **two** positive impact of immigration on Ireland.

[20m]

- |       |                                 |             |
|-------|---------------------------------|-------------|
| (i)   | 1200 & 4700                     | 2 + 2 marks |
| (ii)  | 22 400 & valid example          | 2 + 2 marks |
| (iii) | 50.3(%) and any valid statement | 2 + 2 marks |
| (iv)  | Any two valid explanations      | 2 + 2 marks |
|       |                                 | 2 + 2 marks |



**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. Future Development of Economic Activities

#### Social Media and e-Commerce – Irish Enterprises, 2014

In 2014, 61% of Irish enterprises used some type of social media, such as Facebook, Twitter and YouTube, compared with an EU-28 average of 36% (Eurostat). In terms of enterprises using social media, Ireland ranked second in the EU-28 compared with third in 2013. Malta had the largest percentage of enterprises in the EU-28 using social media at 66%.

The primary method of using social media was the use of social networks; for example 58% of Irish enterprises stated they used social networks such as Facebook. This compares with 46% of enterprises using social networks in 2013.

49% of large enterprises had e-commerce sales and 69% of large enterprises made e-commerce purchases.

Amended from *Information Society Statistics*, CSO, 2014

Read the extract above and answer each of the following questions.

- (i) Name **two** types of social media mentioned in the extract above.
- (ii) By what percentage were Irish enterprises ahead of the EU-28 average in the use of social media?
- (iii) Where was Ireland ranked in the EU-28 in the use of social media in 2014 and what EU-28 country was ranked above Ireland in the use of social media?
- (iv) Explain briefly what is meant by the term *e-commerce*.
- (v) State **two** advantages of developments such as social media and e-commerce for economic activity.

[20m]

- |       |                                 |             |
|-------|---------------------------------|-------------|
| (i)   | Facebook/Twitter/YouTube        | 2 + 2 marks |
| (ii)  | 25(%)                           | 4 marks     |
| (iii) | 2 <sup>nd</sup> & Malta         | 2 + 2 marks |
| (iv)  | Any valid explanation           | 2 + 2 marks |
| (v)   | Any two valid advantages stated | 2 + 2 marks |

## B. Environmental Impact

Examine the environmental impact of economic activities at a local scale and on a global scale.

[30m]

Local environmental impact identified	2 marks
Global environmental impact identified	2 marks
Examination	13 x SRPs

- Max 7 x SRPs if only examination of local environmental impact.
- Max 7 x SRPs if only examination of global environmental impact.
- Credit 2<sup>nd</sup> local and 2<sup>nd</sup> global environmental impact identified for 1 x SRP each. All further impacts require examination.
- Discussion of economic impacts only where there is no reference to environmental impacts 0 marks.
- Impacts can be positive or negative.

## C. Colonialism

Examine the impact of colonialism on an economy in the developing world that you have studied.

[30m]

Developing economy named	2 marks
Impact identified	2 marks
Examination	13 x SRPs

- Credit 2<sup>nd</sup> impact identified for 1 x SRP from examination. All further impacts require examination.
- Discussion without reference to named developing economy max 2 x SRPs.
- Max 2 x SRPs if merely a description of colonialism with no reference to the impact on the developing economy.
- Max 2 x SRPs if merely a description of developing economy with no reference to colonialism.
- Impacts can be positive or negative.

## Question 8

### A. Aerial Photograph

Examine the aerial photograph accompanying this paper.

Draw a sketch map of the aerial photograph, half the length and half the breadth.

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

- A car park
- The triangular street network in the middleground of the aerial photograph
- A large commercial/industrial building in the foreground of the aerial photograph
- An area of waste ground suitable for development.

[20m]

Sketch Outline:

4 marks

4 features @ 4 marks each:

Shown 3 marks (graded 3/1/0)

Label 1 mark

- Sketch outline means half the length and half the breadth.
- If sketch is traced or a section of the aerial photograph is drawn lose 4 marks for sketch outline and lose 3 marks per item for showing. Allow labelling marks only.
- The measurement required is 14.2 cm by 9.25 cm but allow 0.5 cm difference on each side.
- If Ordnance Survey map is used instead of aerial photograph 0 marks.

## B. Mobility of Economic Activities

Examine the mobility of modern economic activities with reference to **one** multinational company that you have studied.

[30m]

MNC named 2 marks  
Examination 14 x SRPs

- Discussion without link to named multinational company 0 marks.
- Max 2 x SRPs if merely a description of multinational company without examination of the mobility of modern economic activities.
- Multinational company need not be Irish based.
- Credit 2 x SRPs for two named locations.

## C. Sustainable Development

Examine the role of sustainable development in controlling the environmental impact of economic activities.

[30m]

Examination 15 x SRPs

- Credit two examples of sustainable development identified from examination for 2 x SRPs.
- Discussion of sustainable development without reference environmental impact max 2 x SRPs.
- Discussion of environmental impact without reference to sustainability development max 2 x SRPs.

## Question 9

### A. The Environment

Total Waste Generated by Households and Businesses in Selected EU Countries in 2004 and 2012 (million tonnes)

Year	2004	2012
Ireland	24.5	20.0
Denmark	12.5	16.0
Czech Republic	29.0	23.0

Amended from Eurostat

Examine the data above showing the total waste generated by households and businesses in selected EU countries in 2004 and 2012.

[20m]

(i) Using graph paper, draw a suitable graph to illustrate this data.

	Bar Chart etc.	Pie Chart
Title	2 marks	2 marks
Vertical axis named	1 mark	1 + 1 mark (Circle & Centered)
Horizontal axis named	1 mark	
6 items illustrated	2 marks each graded	2 marks each graded

- Accept any suitable graph/chart.
- Naming of graph/chart type not sufficient for title mark.
- The title must have some reference to chart content and it can be written anywhere on the graph paper.
- If graph paper is not used deduct 2 marks from total.
- For the Bar chart etc., both axes must be correctly plotted for 1m + 1m.
- Apply the 2 marks graded (2/1/0) if the numbered spaces and the column widths are not plotted accurately.
- Graph must be annotated to illustrate information regarding 2004 & 2012 and the named countries.

(ii) Explain briefly **one** reason why a charge is usually applied for the disposal of waste.

Any valid explanation                      2 + 2 marks

## B. Location of Economic Activity

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

Explain **three** reasons why it may be difficult to attract large foreign companies to the area on the Ordnance Survey map.

Use evidence from the Ordnance Survey map to support each reason.

[30m]

Three reasons @ 10 marks each

For each reason:

Reason stated 2 marks

Map reference / evidence 2 marks

Explanation 3 x SRPs

- Map evidence must be specific i.e. grid reference or named rivers, cardinal point etc.
- If answer is based on aerial photograph allow marks for stating reason only.
- If more than three reasons dealt with mark all and award the highest three marks.

## C. European Union Policy

Examine the impact of European Union policy on the development of primary economic activity in Ireland.

[30m]

Impact on primary activity identified 2 marks

Examination 14 x SRPs

- Credit 2<sup>nd</sup> impact identified for 1 x SRP from examination.
- Credit 1 named policy for 1 x SRP from examination.
- All further impacts and policies require examination.
- Focus of question is on the impact of EU policy on primary economic activity in Ireland, discussion without a reference to this max 2 x SRPs.
- Discussion without reference to European Union policy max 2 x SRPs.
- Accept both positive and negative viewpoints within the examination.

## PATTERNS AND PROCESSES IN THE HUMAN ENVIRONMENT

### Questions 10 to 12

#### Question 10

##### A. Aerial Photograph

Examine the aerial photograph accompanying this paper.

Draw a sketch map of the aerial photograph, half the length and half the breadth.

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

- The triangular street network in the middleground of the aerial photograph
- **Three different** methods for managing traffic that are evident on the aerial photograph.

[20m]

Sketch outline:

4 marks

4 features @ 4 marks each

Shown 3 marks (graded 3/1/0)

Label 1 mark

- Sketch outline means half the length and half the breadth.
- If sketch is traced or a section of the aerial photograph is drawn lose 4 marks for sketch outline and lose 3 marks per item for showing. Allow labelling marks only.
- The measurement required is 14.2 cm by 9.25 cm but allow 0.5 cm difference on each side.
- If Ordnance Survey map is used instead of aerial photograph 0 marks.

## B. Urban Problems

Discuss how the growth of urban centres can lead to any **two** of the following problems, with reference to example(s) that you have studied:

- Traffic congestion
- Urban decay
- Urban sprawl.

[30m]

Example of urban centre	2 marks
Discussion of problem 1	7 x SRPs
Discussion of problem 2	7 x SRPs

- Credit 2<sup>nd</sup> example of urban centre for 1 x SRP from examination.
- An urban centre can be a city, a specific part of a named city or a town.
- Max 2 x SRPs for mere description of problem with no reference to the growth of urban centres.
- Credit a max of 2 x SRPs from discussion for solutions.

## C. Overpopulation

Describe and explain the causes and effects of overpopulation, with reference to examples that you have studied.

[30m]

Cause identified	2 marks
Effect identified	2 marks
Examples	2 + 2 marks
Description/explanation	11 x SRPs

- All further causes and effects require examination.
- Max 6 x SRPs if description/explanation of causes of overpopulation only.
- Max 6 x SRPs if description/explanation of effects of overpopulation only.

## Question 11

### A. Population Dynamics

Irish Birth and Death Rates per 1000 of Population

Year	Birth Rate	Death Rate
1950	21.5	13.0
1990	15.0	9.0
2013	15.0	6.5

Amended from CSO

Examine the data above showing Irish birth and death rates in 1950, 1990 and 2013.

[20m]

(i) Using graph paper, draw a suitable graph to illustrate this data.

	Bar Chart etc.	Pie Chart
Title	2 marks	2 marks
Vertical axis named	1 mark	1 + 1 mark (Circle & Centered)
Horizontal axis named	1 mark	
6 items illustrated	2 marks each graded	2 marks each graded

- Accept any suitable graph / chart.
- Naming of graph / chart type not sufficient for title mark.
- The title must have some reference to chart content and it can be written anywhere on the graph paper.
- If graph paper is not used deduct 2 marks from total.
- For the Bar chart etc., both axes must be correctly plotted for 1m + 1m.
- Apply the 2 marks graded (2/1/0) if the numbered spaces and the column widths are not plotted accurately.
- Graph must be annotated to illustrate information regarding Birth & Death rates and the years.

(ii) Explain briefly **one** reason for the decline in Irish birth rates between 1950 and 2013.

Any valid explanation                      2 + 2 marks

## B. Urban Settlement

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

‘Transport and routeways have played a role in the growth and development of the town of Kenmare historically and to the present day.’

Discuss this statement, using evidence from the Ordnance Survey map to support your answer.

[30m]

Map evidence	2 marks
Discussion	14 x SRPs

- Credit 2 different modes of transport/routeways for 2 x SRPs from discussion.
- Credit further map evidence for 2 x SRPs from discussion.
- Map evidence must be specific i.e. grid reference or named rivers, cardinal points etc.
- If answer is based on the aerial photograph allow marks for identifying modes of transport only.

## C. Migration

Examine the impact of migration on a city in the developing world that you have studied.

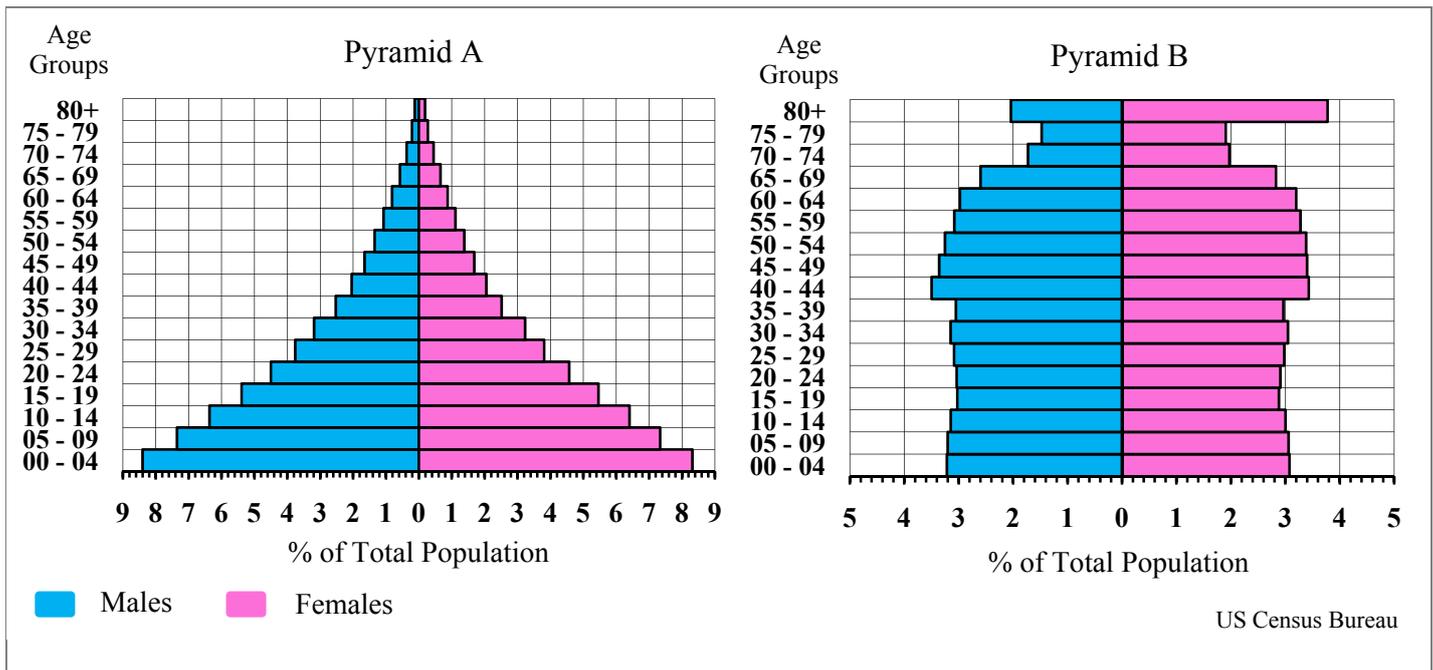
[30m]

Example of developing world city	2 marks
Impact identified	2 marks
Examination	13 x SRPs

- Examination without reference to named or clearly inferred developing world city max 2 x SRPs.
- Credit 2<sup>nd</sup> impact identified for 1 x SRP. All further impacts require examination.

## Question 12

### A. Population



Examine the population pyramids above and answer each of the following questions.

- What percentage of males in Pyramid A are in the 40-44 year age group and what percentage of females in Pyramid B are in the 25-29 year age group?
- Are more people living longer in the area represented by Pyramid A or Pyramid B? With reference to the structure of the pyramid, give **one** piece of evidence to support your answer.
- Which of the pyramids, A or B, represents a developing economy? Name an example of a developing economy.
- Explain briefly **two** challenges facing an economy with a population pyramid similar to Pyramid B.

[20m]

- |       |   |             |
|-------|---|-------------|
| (i)   | 2 & 3 (%)                               | 2 + 2 marks |
| (ii)  | Pyramid B & any valid piece of evidence | 2 + 2 marks |
| (iii) | Pyramid A & any valid named example     | 2 + 2 marks |
| (iv)  | Any two valid challenges explained      | 2 + 2 marks |
|       |   | 2 + 2 marks |

## B. Urban Planning

Examine the impact of urban planning strategies with reference to example(s) that you have studied.

[30m]

Impact identified	2 marks
Example	2 marks
Examination	13 x SRPs

- Credit 2<sup>nd</sup> impact identified for 1 x SRP. All further impacts require examination.
- Discussion without reference to urban planning strategies max 2 x SRPs.
- Credit 2<sup>nd</sup> example for 1 x SRPs from examination.
- Max 2 x SRPs for description of urban planning strategies without referring to their impact.

## C. Phases of Historical Settlement

Examine the 1:50 000 Ordnance Survey map and legend accompanying this paper and answer each of the following questions.

- Name **three different** phases of historical settlement evident on the Ordnance Survey map.
- Name and locate, using six-figure grid references, examples of each of the **three** phases of historical settlement named above.
- Explain briefly each of the **three** phases of historical settlement named above.

[30m]

- |                                   |                   |
|-----------------------------------|-------------------|
| (i) Three historical phases named | 2 + 2 + 2 marks   |
| (ii) Examples of each phase named | 2 + 2 + 2 marks   |
| Loc/GR for each example           | 2 + 2 + 2 marks   |
| (iii) Explanation of each phase   |                   |
| @ 4 marks each                    | 3 @ (2 + 2 marks) |

## **SECTION 3 – OPTIONS**

**Questions 13 to 24**

Attempt **ONE** question

**Note:** It is better to discuss **three** or **four** aspects of the theme in some detail, rather than to give a superficial treatment of a large number of points.

## Questions 13 - 24

### Outline Marking Scheme and Overall Coherence (OC) marking descriptors

#### Outline Marking Scheme:

Number of aspects	3 @ 20 marks each	4 @ 15 marks each
Identifying aspect	4 marks	3 marks
Discussion	8 x SRPs	6 x SRPs
Overall Coherence	20 marks graded*	20 marks graded*

#### Marking Descriptors Overall Coherence (OC):

In awarding Overall Coherence (OC) the examiner will consider how well the candidate deals with the set question and will follow the following marking descriptors:

<b>*Overall Coherence (20 marks)</b>		
Excellent	<b>20</b>	Excellent, comprehensive response demonstrating detailed knowledge of subject matter. Excellent ability to relate knowledge to the question.
Very Good	<b>17</b>	Very good response. Very broad knowledge of the subject matter demonstrated. Considerable strength in relating the knowledge to the set question.
Good	<b>14</b>	Good response with worthwhile information. Broad knowledge of the subject matter. Reasonable capacity to relate knowledge appropriately to the set question.
Fair	<b>10</b>	Basic grasp of subject matter with main points covered but limited detail. Some effort to relate knowledge to the set question but only a basic understanding displayed.
Weak	<b>6</b>	Identified some relevant but limited information and has engaged with the set question to some extent.
Poor	<b>0</b>	General misunderstanding of the question. Failure to address the question resulting in a largely irrelevant answer.

## Global Interdependence

**Note:** It is better to discuss **three** or **four** aspects of the theme in some detail, rather than to give a superficial treatment of a large number of points.

13. ‘We live in an interdependent global economy. Actions or decisions taken in one area have an impact on other areas.’

Examine this statement with reference to each of the following:

- Economic and political refugees
- Migration patterns
- Human rights issues.

**[80m]**

Number of aspects	3 @ 20marks each	4 @ 15 marks each
Identifying aspect	4 marks	3 marks
Discussion	8 x SRPs	6 x SRPs
Overall Coherence	20 marks graded*	20 marks graded*

- Focus of question is on how actions and decisions taken in one area impact other areas.
- Select scheme according to number of aspects discussed.
- Allow for up to 3 examples to a max of 3 x SRPs (different examples and in different aspects).
- Allow for up to 2 labelled illustrations to a max of 2 x SRPs (different illustrations and in different aspects).

14. ‘Empowering people is a way of linking economic growth with human development.’

Discuss this statement with reference to aid programmes.

**[80m]**

Number of aspects	3 @ 20marks each	4 @ 15 marks each
Identifying aspect	4 marks	3 marks
Discussion	8 x SRPs	6 x SRPs
Overall Coherence	20 marks graded*	20 marks graded*

- Focus of question is aid programmes empowering people linking economic growth with human development.
- Discussion can be positive and/or negative.
- Select scheme according to number of aspects discussed.
- Allow for up to 3 examples to a max of 3 x SRPs (different examples and in different aspects).
- Allow for up to 2 labelled illustrations to a max of 2 x SRPs (different illustrations and in different aspects).

15. Discuss the potential impact of Fair Trade on human and economic development.

[80m]

Number of aspects	3 @ 20marks each	4 @ 15 marks each
Identifying aspect	4 marks	3 marks
Discussion	8 x SRPs	6 x SRPs
Overall Coherence	20 marks graded*	20 marks graded*

- Focus of question is impact of Fair Trade on human and economic development.
- Select scheme according to number of aspects discussed.
- Allow for up to 3 examples to a max of 3 x SRPs (different examples and in different aspects).
- Allow for up to 2 labelled illustrations to a max of 2 x SRPs (different illustrations and in different aspects).

## Geocology

**Note:** It is better to discuss **three** or **four** aspects of the theme in some detail, rather than to give a superficial treatment of a large number of points.

16. Examine the influence of mineral matter, air, water and organic matter on soil development.

[80m]

Number of aspects	3 @ 20 marks each	4 @ 15 marks each
Identifying aspect	4 marks	3 marks
Discussion	8 x SRPs	6 x SRPs
Overall Coherence	20 marks graded*	20 marks graded*

- Focus of question is the impact of the listed soil components on soil development.
- Select scheme according to number of aspects discussed
- Allow for up to 3 examples to a max of 3 x SRPs (different examples and in different aspects).
- Allow for up to 2 labelled illustrations to a max of 2 x SRPs (different illustrations and in different aspects).

17. Discuss the impact of human activity on soil.

[80m]

Number of aspects	3 @ 20 marks each	4 @ 15 marks each
Identifying aspect	4 marks	3 marks
Discussion	8 x SRPs	6 x SRPs
Overall Coherence	20 marks graded*	20 marks graded*

- Focus of the question is on the negative and/or positive impact of human activity on soils.
- Select scheme according to number of aspects discussed.
- Allow for up to 3 examples to a max of 3 x SRPs (different examples and in different aspects).
- Allow for up to 2 labelled illustrations to a max of 2 x SRPs (different illustrations and in different aspects).

18. Examine, with reference to **one** biome that you have studied, how plants and animals have adapted to **specific** climatic and soil conditions.

[80m]

Number of aspects	3 @ 20 marks each	4 @ 15 marks each
Identifying aspect	4 marks	3 marks
Discussion	8 x SRPs	6 x SRPs
Overall Coherence	20 marks graded*	20 marks graded*

- Focus of question is how plants adapt to specific climatic and soil conditions and how animal adapt to specific climatic and soil conditions.
- There must be evidence of a link between the plant and animal adaptations to specific climatic and soil conditions. In particular where there is a discussion of adaptations to other characteristics e.g. vegetation, the discussion must clearly link back to climatic and soil conditions as this is the focus of the question.
- Select scheme according to number of aspects discussed.
- Allow for up to 3 examples to a max of 3 x SRPs (different examples and in different aspects).
- Allow for up to 2 labelled illustrations to a max of 2 x SRPs (different illustrations and in different aspects).

## Culture and Identity

**Note:** It is better to discuss **three** or **four** aspects of the theme in some detail, rather than to give a superficial treatment of a large number of points.

19. Examine the impact of colonialism and migration on ethnic/racial patterns.

[80m]

Number of aspects	3 @ 20 marks each	4 @ 15 marks each
Identifying aspect	4 marks	3 marks
Discussion	8 x SRPs	6 x SRPs
Overall Coherence	20 marks graded*	20 marks graded*

- Focus of question is impact of colonialism and migration on ethnic/racial patterns.
- Select scheme according to number of aspects discussed.
- Allow for up to 3 examples to a max of 3 x SRPs (different examples and in different aspects).
- Allow for up to 2 labelled illustrations to a max of 2 x SRPs (different illustrations and in different aspects).

20. 'Identity as a concept entails a variety of cultural factors including nationality, language and religion.'  
Discuss.

[80m]

Number of aspects	3 @ 20 marks each	4 @ 15 marks each
Identifying aspect	4 marks	3 marks
Discussion	8 x SRPs	6 x SRPs
Overall Coherence	20 marks graded*	20 marks graded*

- Focus of question is cultural factors influencing identity.
- Select scheme according to number of aspects discussed.
- Allow for up to 3 examples to a max of 3 x SRPs (different examples and in different aspects).
- Allow for up to 2 labelled illustrations to a max of 2 x SRPs (different illustrations and in different aspects).

21. Examine the effects of political and/or physical boundaries on cultural groups.

[80m]

Number of aspects	3 @ 20 marks each	4 @ 15 marks each
Identifying aspect	4 marks	3 marks
Discussion	8 x SRPs	6 x SRPs
Overall Coherence	20 marks graded*	20 marks graded*

- Focus of question is impact of boundaries on cultural groups.
- Select scheme according to number of aspects discussed.
- Allow for up to 3 examples to a max of 3 x SRPs (different examples and in different aspects).
- Allow for up to 2 labelled illustrations to a max of 2 x SRPs (different illustrations and in different aspects).

## The Atmosphere – Ocean Environment

**Note:** It is better to discuss **three** or **four** aspects of the theme in some detail, rather than to give a superficial treatment of a large number of points.

22. Account for the distinctive nature of **one** global climate type that you have studied.

[80m]

Number of aspects	3 @ 20 marks each	4 @ 15 marks each
Identifying aspect	4 marks	3 marks
Discussion	8 x SRPs	6 x SRPs
Overall Coherence	20 marks graded*	20 marks graded*

- Focus of question is accounting for the distinctive characteristics of one climate type.
- Select scheme according to number of aspects discussed.
- Allow for up to 3 examples to a max of 3 x SRPs (different examples and in different aspects).
- Allow for up to 2 labelled illustrations to a max of 2 x SRPs (different illustrations and in different aspects).

23. Examine how solar energy is transformed and redistributed through circulation patterns in the atmosphere and oceans.

[80m]

Number of aspects	3 @ 20 marks each	4 @ 15 marks each
Identifying aspect	4 marks	3 marks
Discussion	8 x SRPs	6 x SRPs
Overall Coherence	20 marks graded*	20 marks graded*

- Focus of question is on how solar energy is moved around by winds and ocean currents.
- Select scheme according to number of aspects discussed.
- Allow for up to 3 examples to a max of 3 x SRPs (different examples and in different aspects).
- Allow for up to 2 labelled illustrations to a max of 2 x SRPs (different illustrations and in different aspects).

24. Examine the formation of mid-latitude depressions and anticyclones, and the weather patterns associated with them.

[80m]

Number of aspects	3 @ 20 marks each	4 @ 15 marks each
Identifying aspect	4 marks	3 marks
Discussion	8 x SRPs	6 x SRPs
Overall Coherence	20 marks graded*	20 marks graded*

- Focus of question is the formation of mid-latitude depressions, anticyclones and associated weather.
- Select scheme according to number of aspects discussed.
- Allow for up to 3 examples to a max of 3 x SRPs (different examples and in different aspects).
- Allow for up to 2 labelled illustrations to a max of 2 x SRPs (different illustrations and in different aspects).

## GEOGRAPHICAL INVESTIGATION

Simple statements are not acceptable. Require qualification.

### 1. INTRODUCTION (5 marks):

4 x SRPs: 1 mark each  
Overall Coherence: 1 mark

- Aims must relate to investigation and must be specific and qualified.

### 2. PLANNING (5 marks):

4 x SRPs: 1 mark each  
Overall Coherence: 1 mark

- Identifying information required and methods of gathering.
- Reference to revision must be specific.
- All statements must be qualified e.g. practicing equipment where/how/why?
- Work completed solely by the teacher 0 marks

### 3. GATHERING OF DATA (40 marks):

Two methods / tasks @ 20 marks each.

For each method / task: 9 x SRPs @ 2 marks each  
Overall coherence: 4 marks graded (4/2/0)

- The gathering section must be activity based. This section deals with the reporting/description of the activities carried out.
- A method may be a task which is a group of relevant linked activities. Tasks/methods must be reported in the context of the stated aims.
- Secondary sources of information can generate primary data.
- Simple statements are not sufficient e.g. I observed, I recorded, I sketched, I measured, I photographed etc. There must be some qualification of the statement e.g. how/where?
- Credit may be given to diagrams/sketches if they illustrate the activity of gathering. One SRP per task/method for well-drawn, neat, relevant annotated sketches/diagrams that are activity based and illustrate the gathering process.
- A further one SRP per task/method can be awarded in the event that there is additional information on a sketch (not in the written section).
- Sketches/diagrams must be on the appropriate pages in the gathering section.
- No marks for results in this written section.
- Coherence is an overall mark awarded for the relevance of the work in this section to the stated aims.

**4. RESULTS, CONCLUSIONS, EVALUATION (30 marks):**

Three headings @ 8 marks each.

For each heading: 4 x SRPs @ 2 marks each

Overall coherence: 6 marks graded (6/4/2/0)

- Marks only awarded for Results / Conclusions / Evaluations if in the appropriate section of the reporting booklet.
- Results / Conclusions / Evaluations must be tied to aims and tied to activities carried out in the gathering of information section (Section 3).
- Results can be extracted from charts/table on appropriate graph pages.
- Conclusions are based directly or indirectly on the results, otherwise it is evaluation.
- Conclusions are not tied to a specific result but must be relevant to the tasks completed in Section 3.
- Evaluations should demonstrate higher order thinking and should have a range of themes. They should relate to the aims in Section 1 and the tasks completed in Section 3. They must be specific and qualified.
- Evaluation can be forward-thinking as well as retrospective.

**5. ORGANISATION & PRESENTATION OF RESULTS (20 marks):**

Presentation: 8 x SRPs @ 2 marks each

Overall coherence: 4 marks graded (4/2/0)

- There must be two different forms of presentation of results e.g. graphs, chart, map, table, sketch etc.
- Results must be presented on the appropriate graph pages in Section 4 of the reporting booklet.
- Maximum of 4 x SRPs per method of presentation.
- Overall Coherence refers to the quality and clarity of the presentation. It is 4 marks for the overall presentation. Cannot be awarded OC marks if only one method of presentation is evident.

## BREAKDOWN OF PRESENTATION MARKS

### **BAR CHART / TREND GRAPH / SCATTER GRAPH etc.:**

Suitable Title	2 marks
1 axis with units or scale:	1 x SRP=2 marks
Each of 2 correctly drawn & labelled points / bars:	2 x SRP = 4 marks

### **PIE CHART:**

Suitable Title:	1 x SRP=2 marks
Circle with correctly placed centre:	1 x SRP=2 marks
Each of 2 correctly drawn & labelled sectors:	2 x SRP = 4 marks

### **RANK ORDER TABLE / TABLE:**

#### **Multiple Row/Column Table**

Suitable Title:	1 x SRP = 2 marks
Box:	1 x SRP = 2 marks
Rows / Columns x2 labelled:	2 x SRP = 2 + 2 marks

#### **Single Row / Column Table**

Suitable Title:	1 x SRP = 2 marks
Box:	1 x SRP = 2 marks
Row / Column labelled:	1 x SRP = 2 marks
Relevant information:	1 x SRP = 2 marks

### **SKETCH/MAP:**

Suitable Title:	1 x SRP = 2 marks
Frame:	1 x SRP = 2 marks
Two relevant pieces of information re results:	2 x SRP = 4 marks

# **List of Geographical Investigation Topics 2015**

1. An analysis of the relationship between land-use and pedestrians.
2. A study of population change.
3. Water pollution – A local study.
4. An investigation of the relationship between economic activity and a local area.
5. An investigation of the geomorphic process of erosion in a fluvial or coastal or glaciated environment.
6. An examination of traffic management in a local area.

## Marcanna Breise as ucht freagairt trí Ghaeilge

Léiríonn an tábla thíos an méid marcanna breise ba chóir a bhronnadh ar iarrthóirí a ghnóthaíonn thar 75% d'iomlán na marcanna.

N.B. Ba chóir marcanna de réir an ghnáthráta a bhronnadh ar iarrthóirí nach ngnóthaíonn thar 75% d'iomlán na marcanna. Ba chóir freisin an marc bónais sin a shlánú síos.

Iomlán: 400 Gnáthráta: 10%

Bain úsáid as an ngnáthráta i gcás marcanna suas go 300. Thar an marc sin, féach an tábla thíos.

Bunmharc	Marc Bónais
301 – 303	29
304 – 306	28
307 – 310	27
311 – 313	26
314 – 316	25
317 – 320	24
321 – 323	23
324 – 326	22
327 – 330	21
331 – 333	20
334 – 336	19
337 – 340	18
341 – 343	17
344 – 346	16
347 – 350	15

Bunmharc	Marc Bónais
351 - 353	14
354 - 356	13
357 - 360	12
361 - 363	11
364 - 366	10
367 - 370	9
371 - 373	8
374 - 376	7
377 - 380	6
381 - 383	5
384 - 386	4
387 - 390	3
391 - 393	2
394 - 396	1
397 - 400	0

Geographical Investigation – Not included in total for bonus marks.

Note: Modified marking scheme available for candidates who sat a modified examination paper.

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