



Coimisiún na Scrúduithe Stáit State Examinations Commission

LEAVING CERTIFICATE EXAMINATION, 2019

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.

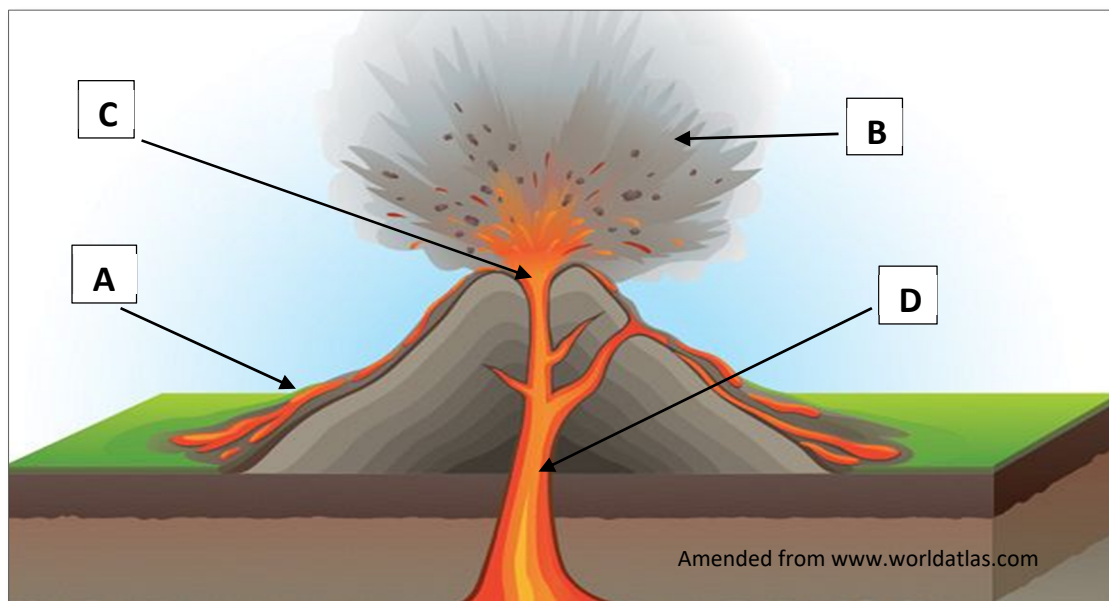
PART ONE – SHORT-ANSWER QUESTIONS – 100 MARKS

Attempt any **TEN** questions.

All questions carry equal marks.

THESE QUESTIONS ARE TO BE ANSWERED IN THE SPACES PROVIDED

1. Volcanoes



Examine the diagram above which shows the structure of a volcano and answer each of the following questions.

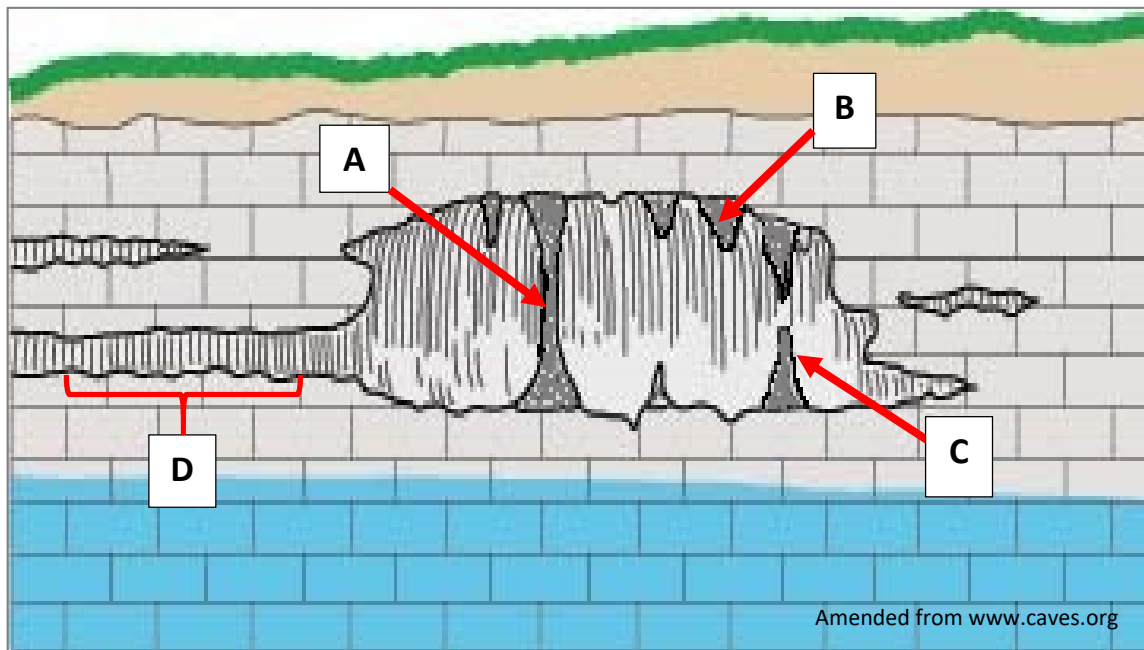
- (i) Match each of the letters **A**, **B**, **C** and **D** with the feature that best matches it in the table below.

Feature	Letter
Ash cloud	
Vent	
Crater	
Lava flow	

- (ii) Name **one** example of an active volcano.

[10m]

2. Karst Landscape



Examine the diagram above of underground features in a Karst region, and answer each of the following questions.

- (i) Match each of the letters **A**, **B**, **C** and **D** with the landform that best matches it in the table below.

Landform	Letter
Stalagmite	
Passage	
Pillar	
Stalactite	

- (ii) Are the landforms in the table above formed as a result of mechanical weathering **or** chemical weathering?

[10m]

3. Rivers



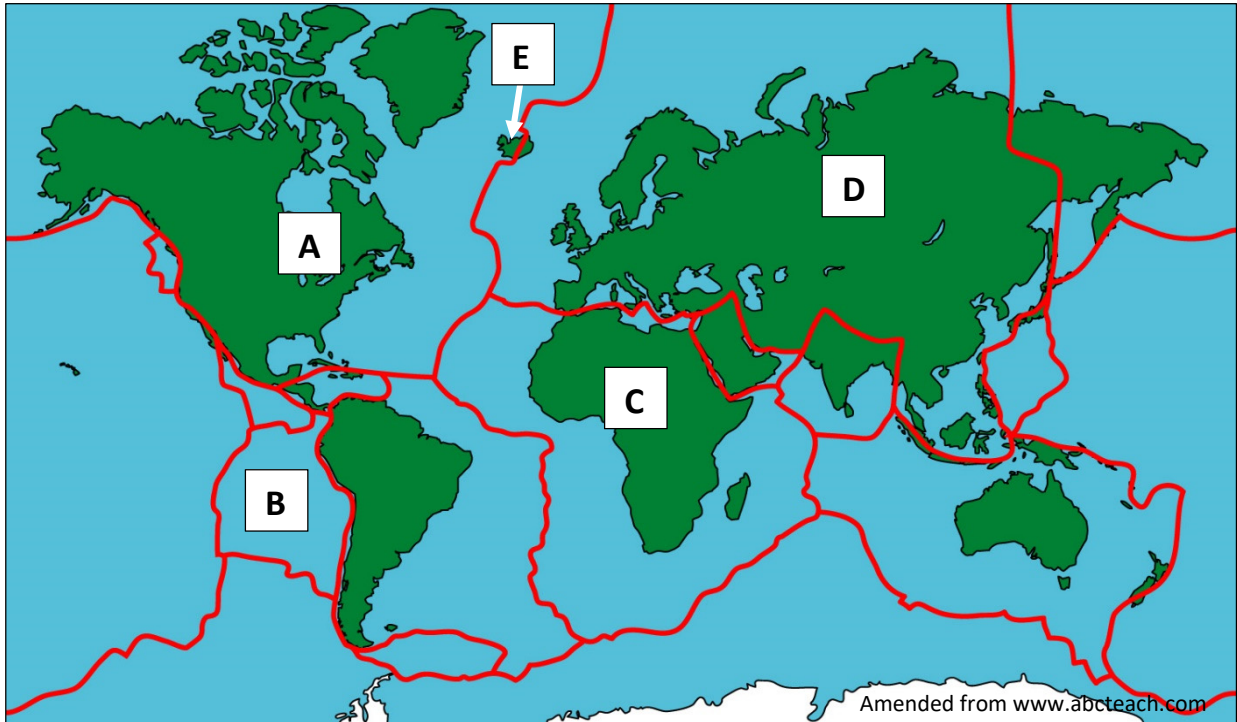
Examine the photographs above. Complete the table by answering each of the following questions. Some of the table has been completed for you.

- (i) Match each of the photographs **A**, **B**, **C** and **D** with the landform that best matches it in the table below.
- (ii) State whether each of the landforms named in the table is formed by erosion **or** deposition **or** both erosion and deposition.

Q.3(i) Letter	Landform	Q.3(ii) Erosion / Deposition / Both
D	V-shaped valley	
	Meander	Both erosion and deposition
	Waterfall	Erosion
	Delta	

[10m]

4. Plate Tectonics



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

- (i) Match each of the letters **A**, **B**, **C** and **D** with the named plate that best matches it in the table below.

Plate	Letter
African Plate	
North American Plate	
Nazca Plate	
Eurasian Plate	

- (ii) Name the volcanic island located at **E**.

[10m]

5. Ordnance Survey Map

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

- (i) Devilsbit Mountain and Kilduff Mountain are located in which area of the Ordnance Survey map?

Tick the correct box.

North west ☐

North east ☐

- (ii) What is the length of the R 501 road from where it enters the map at S 044 680 to where it meets the N62 road at S 106 714?

Tick the correct box.

6.6 km ☐

7.0 km ☐

[10m]

6. Ordnance Survey Map

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

- (i) Name the features located at each of the following grid references.

S 108 707 _____

S 050 728 _____

S 120 707 _____

- (ii) What does the letter R stand for in relation to the R501 and the R433 roads?

- (iii) Draw the Ordnance Survey map symbol for a Triangulation Pillar in the box below.



[10m]

7. Aerial Photograph

Examine the aerial photograph of Templemore accompanying this paper.

Indicate whether each of the following statements is True or False, by circling the correct option in each case.

- (i) There is a roundabout in the centre foreground of the aerial photograph.

True

False

- (ii) There is a lake in the left middleground of the aerial photograph.

True

False

- (iii) There is a running track in the right foreground of the aerial photograph.

True

False

- (iv) There is a graveyard in the left foreground of the aerial photograph.

True

False

- (v) Agriculture is an example of an economic activity in the centre background of the aerial photograph.

True

False

[10m]

8. Regions

Match the **description of the region** with the **example of the region** that best matches it, by writing the correct letter in the table below.

Letter	Description of Region
A	An urban area.
B	A region defined by religion.
C	A geomorphological region.
D	A peripheral region.
E	A climatic region.

Example of Region	Letter
The Islamic World	
Cool Temperate Oceanic	
Limerick	
The Border, Midlands, West (BMW) region	
Wicklow Mountains.	

[10m]

9. European Union

Members of the European Union and Year of Joining

Year	Countries		
1957	Belgium	Germany	Luxembourg
	France	Italy	The Netherlands
1973	Denmark	Ireland	United Kingdom
1981	Greece		
1986	Portugal	Spain	
1995	Austria	Finland	Sweden
2004	Cyprus	Czech Republic	Estonia
	Hungary	Latvia	Lithuania
	Malta	Poland	Slovakia
	Slovenia		
2007	Bulgaria	Romania	
2013	Croatia		

Examine the table above showing the year that each of the countries joined the European Union and answer the following questions.

- (i) In which year did Romania and Bulgaria join the European Union?

- (ii) How many countries joined the European Union in 2004?

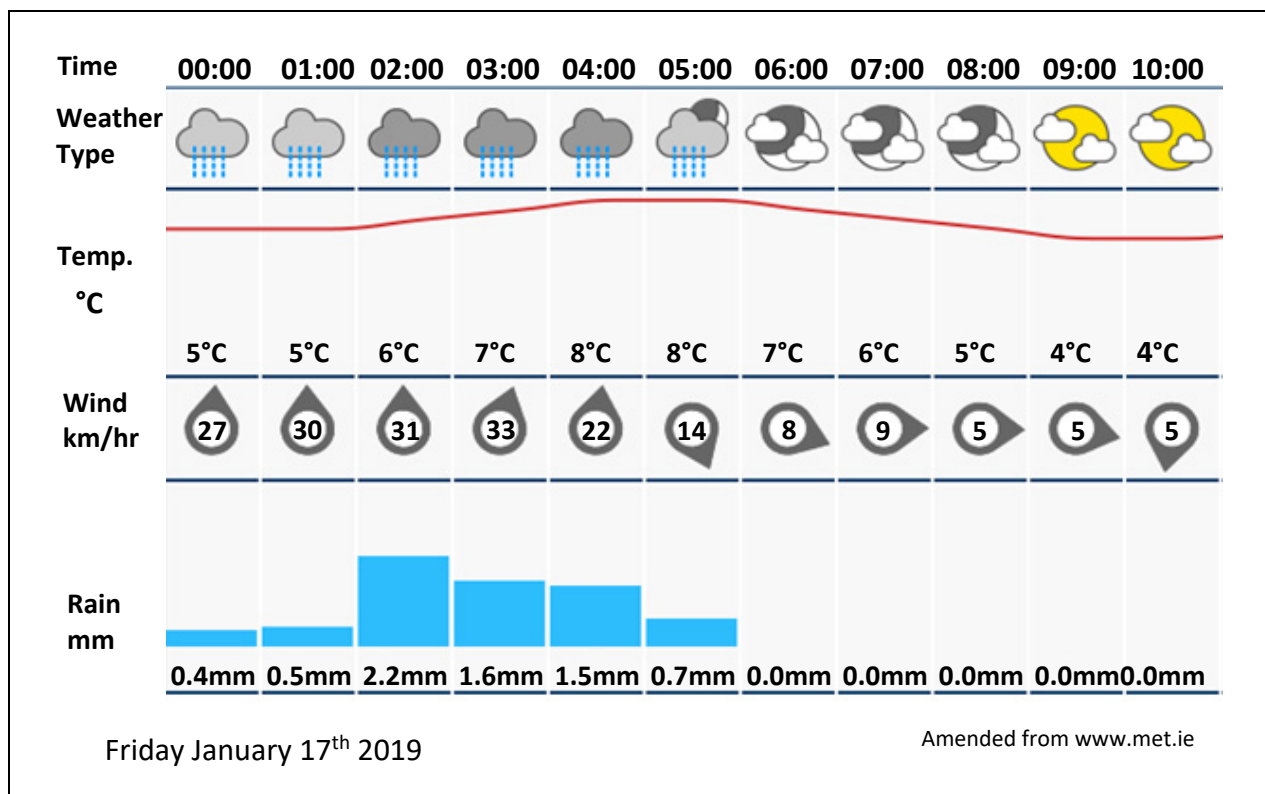
- (iii) What country is the most recent member of the European Union?

- (iv) Are the countries that joined the European Union in the 1980's located in Northern Europe or Southern Europe?

- (v) State **one** advantage of membership of the European Union.

[10m]

10. Weather Statistics



Examine the weather graphic above, and with reference to the data provided answer each of the following questions.

- (i) What was the lowest temperature (°C) experienced on January 17th?

- (ii) What was the wind speed (km/hr) at midnight (00:00 hours)?

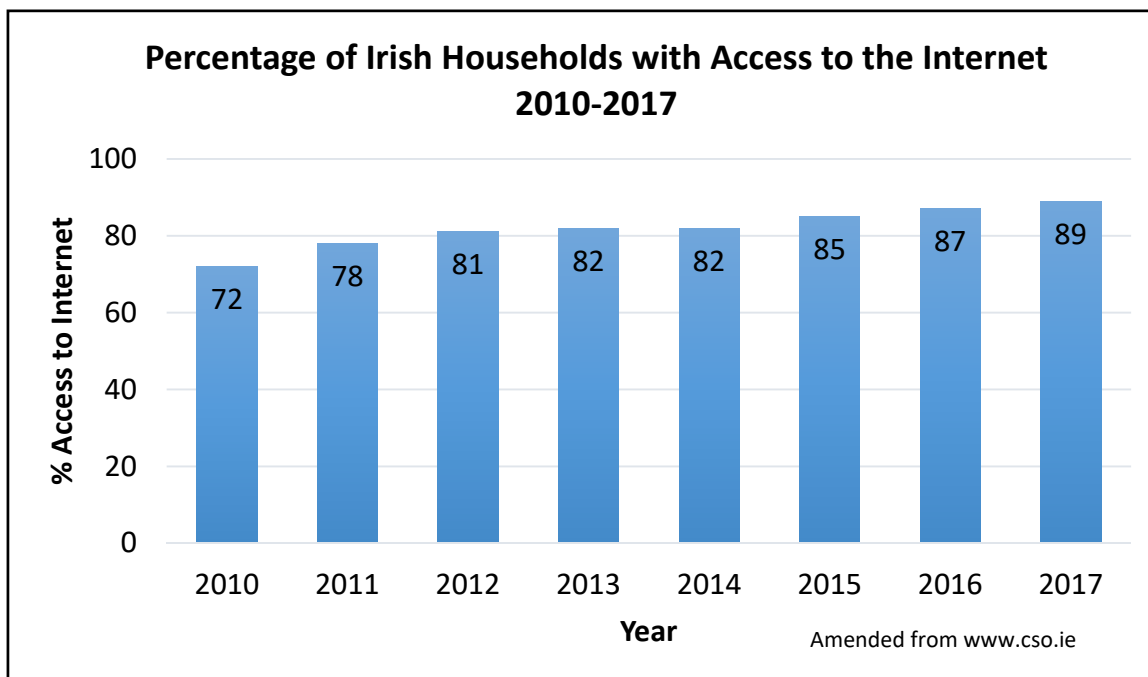
- (iii) How many hours of rainfall were there between midnight and 10 o'clock?

- (iv) What was the highest temperature (°C) recorded on January 17th?

- (v) What is the name of the weather instrument used to measure temperature?

[10m]

11. Communications in Ireland



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

- (i) In which year did 87% of Irish households have access to the internet?

- (ii) What was the change in the percentage of Irish households with access to the internet between 2011 and 2016?

- (iii) Between which **two** years was there no change in the percentage of Irish households with access to the internet?

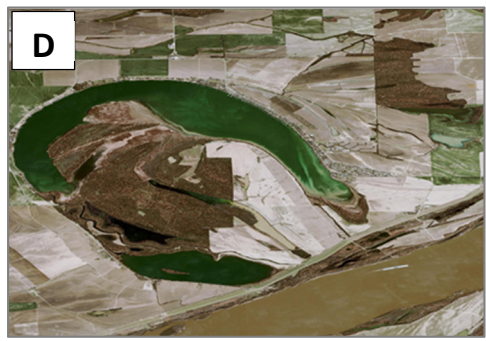
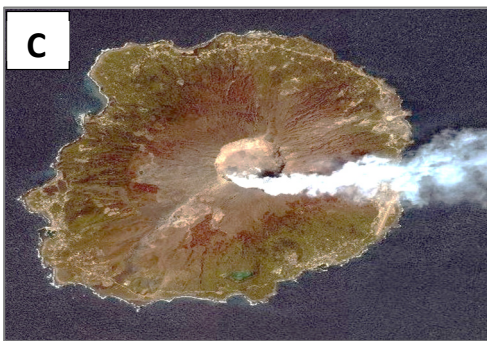
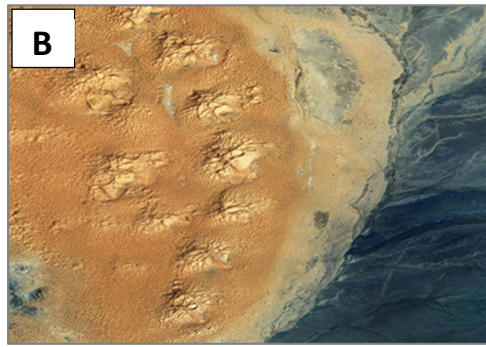
- (iv) According to the chart, what was the trend in access to the internet between 2010 and 2017? Tick the correct box.

Increasing	<input type="checkbox"/>
Decreasing	<input type="checkbox"/>

- (v) What percentage of Irish households had no access to the internet in 2017?

[10m]

12. Satellite Interpretation



Amended from www.nationalgeographic.org

Examine the satellite images above and answer each of the following questions.

- (i) Match each of the images **A**, **B**, **C** and **D** with the description that best matches it in the table below.

Description	Letter
Sand dunes, Sahara Desert	
Miyakejima Volcano, Japan	
Crater Lake, USA	
Oxbow lake on the Mississippi River	

- (ii) Which **two** landforms, named in the table above, are formed as a result of volcanic activity?

1. _____
2. _____

[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 **(100 marks)**
 - AND**
 - **One** question from Questions 4, 5 and 6 **(100 marks)**
- **ONE** question from **Section 2 – Electives (100 marks)**

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 (Questions 1 to 3)**

AND

ONE from **Regional Geography (Questions 4 to 6)**

All questions carry 100 marks.

PATTERNS AND PROCESSES IN THE PHYSICAL ENVIRONMENT

Questions 1 to 3

Attempt **ONE** question.

Question 1

1A. Ordnance Survey Map

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

Draw a sketch map of the area shown on the Ordnance Survey map.

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

- The **highest** point on the Ordnance Survey map
- Templemore Lake
- The River Suir from S 132 728 to where it leaves the map at S 119 680
- An area of coniferous planation in the south east
- An area of deciduous woodland south of Templemore.

[30m]

1B. Landform Development

Answer (i) or (ii).

(i) Explain, with the aid of diagrams, the formation of any **two** landforms.

Or

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

[40m]

1C. Human Interaction with the Rock Cycle

Describe and explain how humans interact with the rock cycle with reference to **one** of the following:

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

[30m]

Question 2

2A. Earthquakes

Some 80% of all the planet's earthquakes occur along the rim of the Pacific Ocean, called the “Ring of Fire”. Most earthquakes occur at fault zones, where tectonic plates collide or slide against each other.

The impacts are usually gradual and unnoticeable on the surface; however, immense stress can build up between plates. When this stress is released quickly, it sends massive vibrations called seismic waves out from the focus.

Scientists assign a magnitude rating to earthquakes, called the Richter Scale, based on the strength and duration of their seismic waves. A quake measuring 3 to 5 is considered minor or light; 5 to 7 is moderate to strong; 7 to 8 is major; and 8 or more is great.



Amended from www.nationalgeographic.com

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

- (i) What name is given to the area where 80% of all earthquakes occur?
- (ii) Name the scale used to assign a magnitude rating to an earthquake.
- (iii) What range of magnitude is considered to be a moderate to strong earthquake?
- (iv) Explain briefly what is meant by a *fault zone*.
- (v) List **three** effects of an earthquake.
- (vi) Explain briefly **one** way to limit the damage that an earthquake can cause.

[30m]

2B. Human Interaction with Surface Processes

Examine how humans interact with **one** of the following surface processes:

- River processes
- Coastal processes
- Mass movement processes.

[30m]

2C. Rocks

- (i) Name **two** examples of sedimentary rocks.
- (ii) State **two** uses of sedimentary rocks.
- (iii) Describe and explain how sedimentary rocks are formed.

[40m]

Question 3

3A. Landforms and Processes



Amended from www.geomythology.wordpress.com; www.fromthegrapewine.com; www.irishcentral.com

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

- (i) In your answer book, match each of the letters **A**, **B** and **C** on the photographs above, with the landform that best matches it from the list below:
- Beach
 - U-shaped valley
 - Basalt columns.
- (ii) In your answer book, match each of the letters **A**, **B** and **C** on the photographs above, with the process most associated with its formation from the list below:
- Lava cooling
 - Longshore drift
 - Plucking.
- (iii) Explain briefly **each** of the following:
- Longshore drift
 - Plucking.

[30m]

3B. Weathering

- (i) Name any **two** factors that influence weathering.
- (ii) Describe and explain any **two** of the following types of weathering:
- Onion weathering
 - Carbonation
 - Freeze-thaw action.

[40m]

3C. Plate Boundaries

Describe and explain what happens at constructive (separating) plate boundaries **and** destructive (colliding) plate boundaries.

[30m]

REGIONAL GEOGRAPHY

Questions 4 to 6

Attempt **ONE** question.

Question 4

4A. European Region

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

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

- **One** named river in this region
- **Two** named towns or cities in this region
- **One** named area of relief (upland or lowland) in this region.

[30m]

4B. Tertiary Economic Activities – Continental / Sub-Continental Region

- Name **two** types of transport in a **Continental / Sub-Continental** region that you have studied.
- Describe and explain the importance of transport in this region.
- Give the names of **two** specific tourist attractions in a **Continental / Sub-Continental** region that you have studied.
- Describe and explain the reasons why tourists are attracted to this region.

[40m]

4C. Regions and Culture

The culture of a region can often be determined by the following factors:

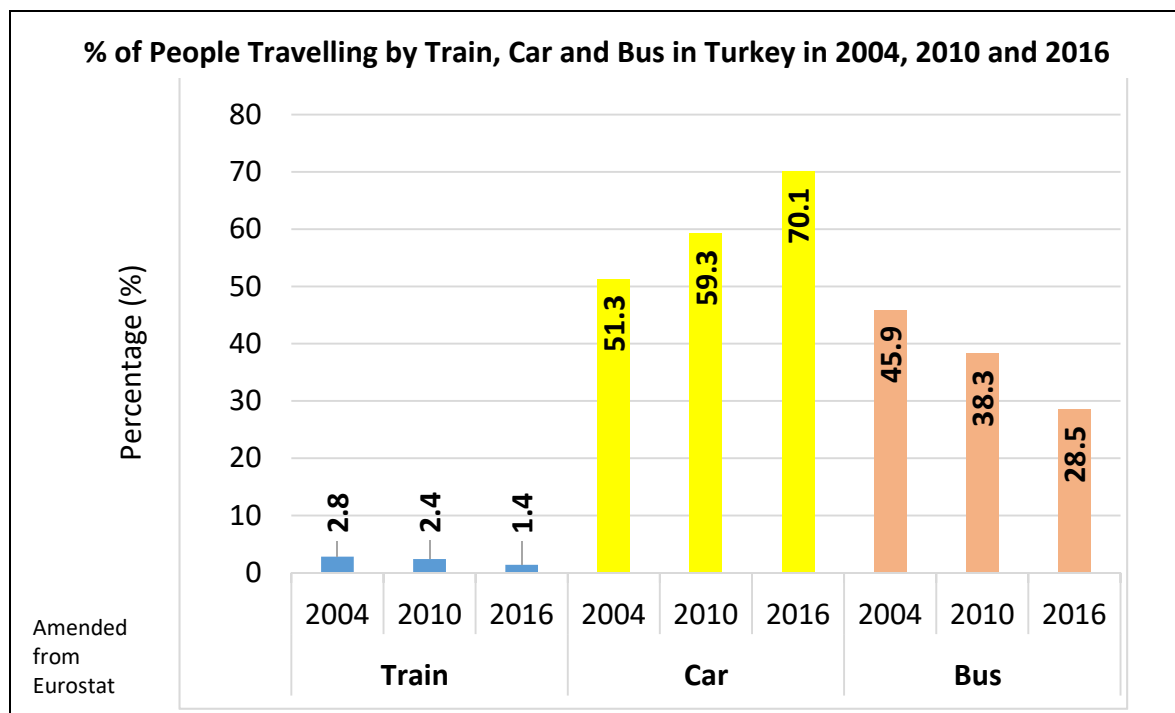
- Religion
- Language
- Politics
- Music/Dance
- Sport/Games.

Describe and explain the importance of any **three** of these factors to the culture of any region that you have studied.

[30m]

Question 5

5A. Transport



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

- What percentage of people travelled by bus in 2010?
- By how much, did the percentage of people travelling by train decrease between 2004 and 2016?
- Which form of transport was most popular in 2004?
- Which **two** forms of transport had the same trend in usage from 2004 to 2016?
- Explain briefly **one** environmental problem associated with an increase in the number of people travelling by car.
- Explain briefly **one** way to reduce the number of people travelling by car.

[30m]

5B. Urban Regions

Describe and explain the growth of any **one** urban area that you have studied.

[30m]

5C. Secondary Economic Activity in a European Region

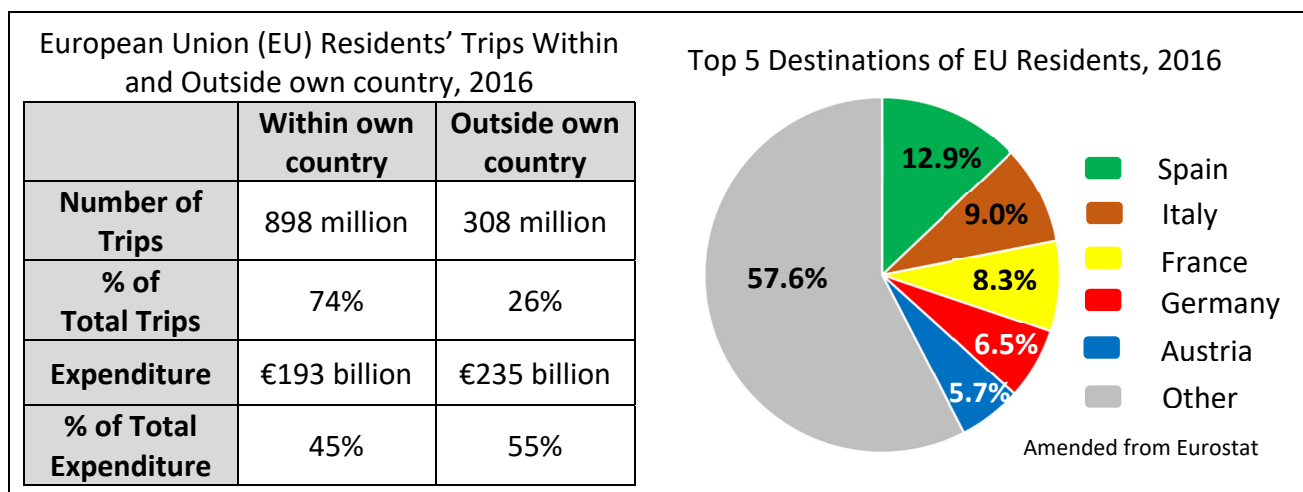
Answer each of the following questions with reference to a **European** region (**not in Ireland**) that you have studied.

- Name **one** example of a secondary economic activity in this region.
- Explain the advantages this region has for the development of this secondary economic activity.
- Describe **one** challenge faced by this secondary economic activity in this region.

[40m]

Question 6

6A. European Union – Tourism



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

- How many million trips were made by EU residents outside their own country in 2016 **and** what percentage of total trips did this represent?
- What was the total amount (€ billion) spent by EU residents on all trips (within and outside their own country) in 2016?
- Explain briefly **one** possible reason why more money was spent on trips outside EU residents' own country (55%) rather than inside their own country (45%) in 2016.
- Explain briefly **one** possible reason why Spain was the most popular destination for EU residents to visit.
- Which was the **third** most popular destination for EU residents to visit in 2016?
- Name **one** country in the 'Other' category that EU residents may have travelled to **and** name **one** tourist attraction in this country.

[30m]

6B. Primary Economic Activities – Irish Region

Answer each of the following with reference to an **Irish** region that you have studied.

- Name **one** primary economic activity that contributes to the economy of this region.
- Explain how **two** of the factors listed below influence the development of the primary economic activity named by you in part (i) above:

Climate

Relief and soils

Markets

[40m]

6C. Regional Problems

Describe and explain **two** problems faced by 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 (Questions 7, 8 and 9)

OR

Patterns and Processes in the Human Environment (Questions 10, 11 and 12)

All questions carry 100 marks.

PATTERNS AND PROCESSES IN ECONOMIC ACTIVITIES

Questions 7 to 9

Question 7

7A. Aerial Photograph

Examine the aerial photograph of Templemore accompanying this paper.

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

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

- The main street in the town
- A car park
- A field with animals in it, in the right middleground
- An industrial building in the left foreground
- An area of recreational activity in the left background.

[30m]

7B. Economic Development – Developed Economy

Describe and explain the development of **one** of the following economic activities with reference to a developed economy that you have studied:

- Tourism
- Financial services
- Service and footloose industries.

[30m]

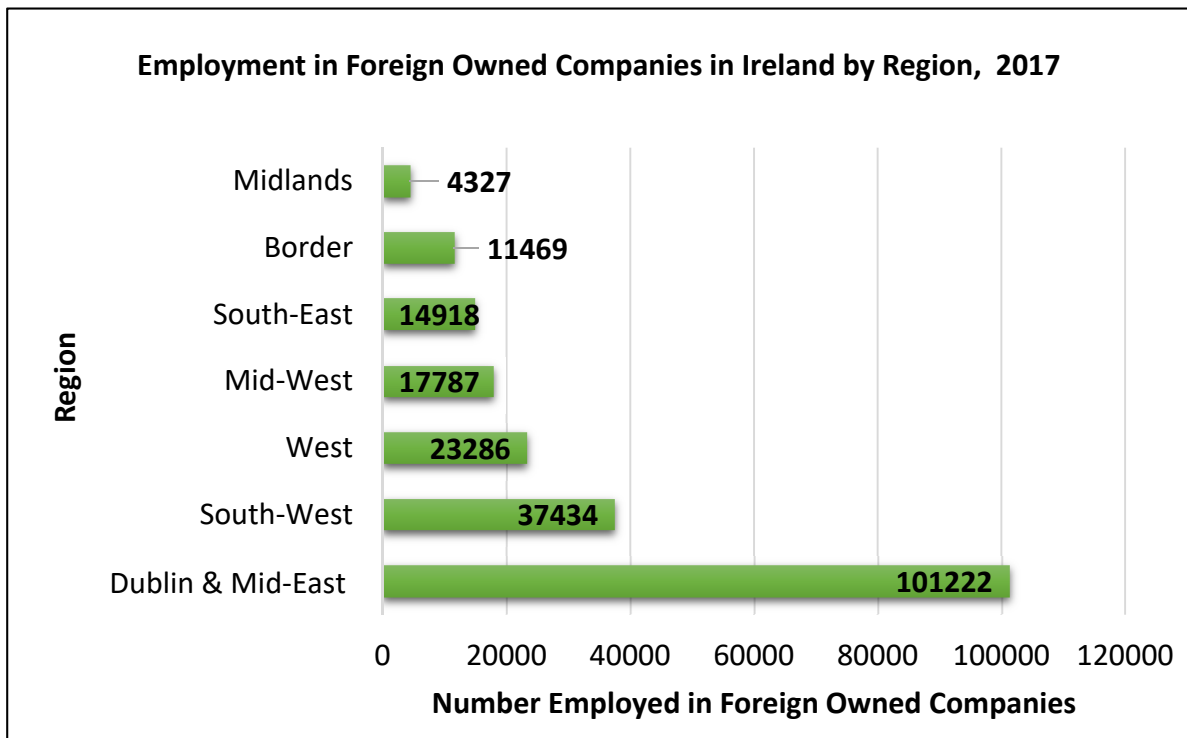
7C. Economic Activity - Environmental Pollution

- (i) Name **one** example of environmental pollution caused by economic activity.
- (ii) Explain the causes **and** effects of this environmental pollution.
- (iii) Describe how this environmental pollution could be reduced.

[40m]

Question 8

8A. Employment in Ireland



End of Year Results 2017



IDA Ireland, the Irish Government agency responsible for attracting foreign direct investment to Ireland, has announced that employment levels in foreign owned companies have reached 210,443. This figure surpasses the overall five year target of 209,000 which was set in 2015 in IDA Ireland's *Foreign Direct Investment 2015 – 2019 Strategy*.

Amended from www.idaireland.com

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

- How many people were employed in foreign owned companies in the South-East region?
- Which region had the **second** highest number of people employed in foreign owned companies?
- Calculate the number of people employed in foreign owned companies in the Border, Midlands and West combined.
- What do the letters IDA stand for?
- State **one** responsibility of IDA Ireland referred to in the extract above.
- Explain briefly **two** reasons why the Dublin & Mid-East region had the highest number of people employed in foreign owned companies.

[30m]

8B. Economic Activity

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

- (i) Name **two** different modes of transport that are evident on the map.
- (ii) Name **two** different economic activities (other than transport) that are evident on the map.
- (iii) With reference to **one** of the economic activities named by you in part (ii), explain how the transport network in the area is a benefit to this economic activity.
- (iv) Describe and explain any problems that might occur as a result of the transport network on the map.

[40m]

8C. European Union Policy

Choose any **one** of the European Union policies listed below and describe and explain how this policy has impacted on the Irish economy.

- Regional Development Funds
- Common Fisheries Policy
- Common Agricultural Policy
- Social Funds.

[30m]

Question 9

9A. European Union Trade

Value of Agricultural Exports from the European Union (EU) to the
Rest of the World, 2017

Category of Agricultural Product	€ Billion
Commodities/Other Primary Products	48
Processed	27
Food Preparation	30
Beverages	18
Non Edible	15

Amended from www.ec.europa.eu

Examine the table above showing the value of agricultural exports from the European Union to the rest of the world in 2017 and answer each of the following questions.

- (i) Using graph paper, draw a suitable graph to illustrate this data.
- (ii) In your answer book, name **two** specific agricultural products exported from the European Union to the rest of the world.

[30m]

9B. Multinational Company

- (i) Name **one** multinational company that you have studied **and** state where this multinational company is located in Ireland.
- (ii) Name **one** raw material required by this multinational company **and** name **one** product manufactured by this multinational company.
- (iii) Explain the advantages of being located in Ireland for this multinational company.
- (iv) Explain **one** difficulty facing this multinational company in the future.

[40m]

9C. Colonialism

- (i) Name **one** developing economy which has been colonised **and** name the country that colonised it.
- (ii) Describe and explain the effects that colonialism has had on this developing economy.

[30m]

PATTERNS AND PROCESSES IN THE HUMAN ENVIRONMENT

Questions 10 to 12

Question 10

10A. Urban Settlement

Percentage of the World's Population Living in Urban Settlements, 2016

Size of Urban Settlement (no. of people)	% of World's Population
A 10 million or more	7
B 5 to 10 million	4
C 1 to 5 million	12
D 0.5 million to 1 million	5
E Less than 0.5 million	27

Amended from www.un.org

Examine the table above showing the percentage of the world's population living in urban settlements in 2016 and answer each of the following questions.

- Using graph paper, draw a suitable graph to illustrate this data.
- In your answer book, calculate the total percentage of the world's population that lived in urban settlements in 2016.

[30m]

10B. Traffic Congestion

- Name **one** example of an urban area where traffic congestion is a problem.
- Describe and explain the measures that can be taken in urban areas to solve the problem of traffic congestion.

[30m]

10C. Migration

- Explain briefly each of the following terms:
 - Donor region in the context of migration
 - Receiver region in the context of migration.
- Discuss **both** the positive and negative impacts of migration.

[40m]

Question 11

11A. Aerial Photograph

Examine the aerial photograph of Templemore accompanying this paper.

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

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

- A three storey building in the right foreground
- The Central Business District (CBD)
- A church
- An area of semi-detached housing in the left background
- An area of recreational activity.

[30m]

11B. Developing World City

- (i) Name **one** city in the developing world that is growing rapidly.
- (ii) State **three** factors that influence the growth of this developing world city.
- (iii) Describe and explain any **three** problems associated with the rapid growth of this developing world city.

[40m]

11C. Population Change

The characteristics of Ireland's population have changed over time due to many factors.

Explain how any **three** of the following factors have impacted on Ireland's population characteristics:

- Medical technology
- Culture and society
- Income levels
- Resources.

[30m]

Question 12

12A. Emigration - Ireland

Irish Emigrants by Area of Destination

	2008	2013	2017
United Kingdom (UK)	7,600	20,000	12,100
European Union (EU) (excluding UK)	17,900	23,500	22,600
United States of America (USA)	2,400	14,100	5,300
Australia	10,400	5,700	6,500
Total	38,300	63,300	46,500

Amended from CSO

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

- (i) How many Irish people emigrated to the UK in 2017?
- (ii) To which destination was there a decrease in Irish emigrants between 2008 and 2013?
- (iii) Calculate the total number of Irish emigrants to the USA in the three years of 2008, 2013 and 2017 combined.
- (iv) Where did the least number of people emigrate to in 2013?
- (v) Where did the least number of people emigrate to in 2017?
- (vi) Explain briefly **one** reason why the total number of Irish emigrants was at its highest in 2013.
- (vii) Explain briefly **one** positive impact of emigration on Ireland.

[30m]

12B. Urban Land-Use

- (i) Name **one** urban area you have studied.
- (ii) Name **two** land-uses in this urban area.
- (iii) Describe and explain how these urban land-uses have changed over time.

[30m]

12C. Rural Settlement Patterns

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

- (i) Name **three different** rural settlement patterns evident on the map **and** give a six-figure grid reference for the location of an example of each.
- (ii) Describe and explain each of the **three** rural settlement patterns named by you in part (i) above.

[40m]

There is no examination material on this page

Leaving Certificate 2019 – Ordinary level

Geography

Friday 7 June

Morning 9:30 – 12:20