



Coimisiún na Scrúduithe Stáit State Examinations Commission

LEAVING CERTIFICATE EXAMINATION, 2015

GEOGRAPHY – ORDINARY LEVEL

FRIDAY, 5 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.

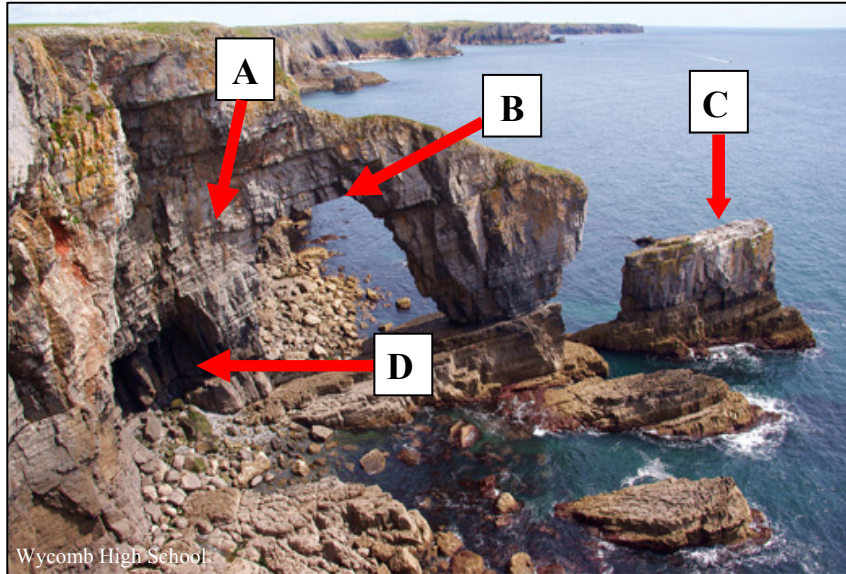
PART ONE – SHORT-ANSWER QUESTIONS – 100 MARKS

Attempt any **TEN** questions.

All questions carry equal marks.

THESE QUESTIONS ARE TO BE ANSWERED IN THE SPACES PROVIDED

1. Coastal Landforms



- (i) Examine the photograph above showing coastal landforms and match each of the letters **A**, **B**, **C** and **D** with the landform that best matches it, in the table below.

Landform	Letter
Sea stack	
Sea arch	
Sea cave	
Sea cliff	

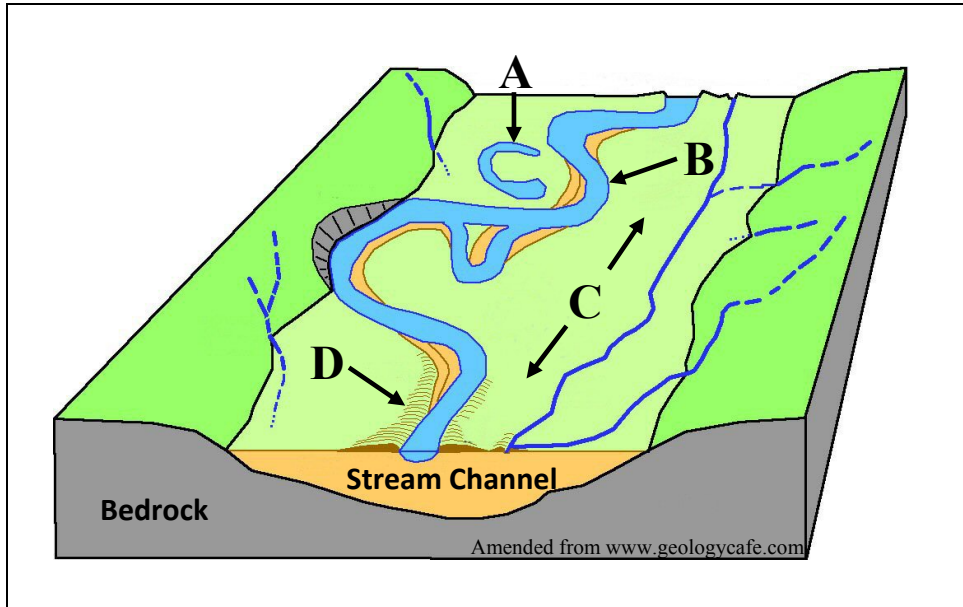
- (ii) Indicate whether the statement below is true or false, by ticking the correct box.

All of the landforms named above are formed by coastal deposition.

True False

[10m]

2. River Landforms



Examine the diagram above showing river landforms 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
Levée	
Floodplain	
Meander	
Oxbow lake	

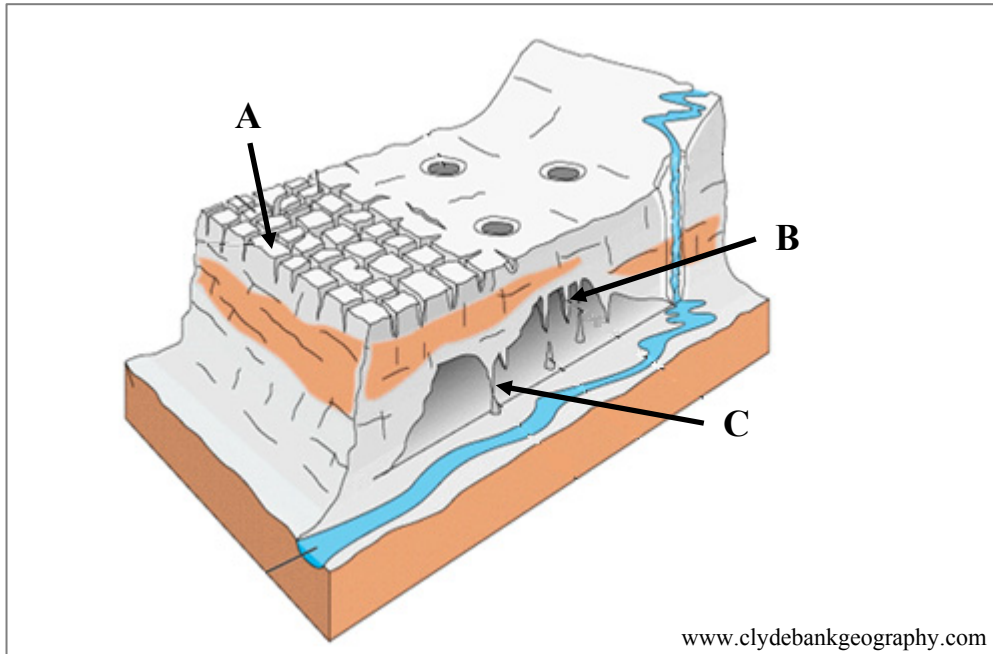
- (ii) Indicate whether the landforms named above are most associated with the youthful stage of a river or the old age stage of a river, by ticking the correct box.

Youthful stage

Old age stage

[10m]

3. Karst Landscape



Examine the diagram of a karst landscape above and answer each of the following questions.

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

Landform	Letter
Pillar/column	
Clint	
Stalactite	

- (ii) Indicate whether each of the statements below is true or false, by ticking the correct box.

- (a) The Giant's Causeway is an example of a karst landscape.

True False

- (b) Permeable rock allows water to pass through it easily.

True False

[10m]

4. Earthquakes

Largest and Deadliest Earthquakes by Year, 2009-2012

Year	Largest Earthquakes		Deadliest Earthquakes		
	Magnitude	Region	Magnitude	Fatalities	Region
2012	8.6	Northern Sumatra	6.7	113	Philippines
2011	9.0	Japan	9.0	20 896	Japan
2010	8.5	Chile	7.0	316 000	Haiti
2009	8.1	Samoa Islands	7.5	1117	Southern Sumatra

Amended from www.usgs.gov

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

- (i) What was the magnitude of the earthquake in Southern Sumatra in 2009?

- (ii) In which year was the largest earthquake?

- (iii) Where was the earthquake with the greatest number of fatalities?

- (iv) What is the name given to the point on the earth's surface directly above the focus of an earthquake?

- (v) Indicate whether the statement below is true or false, by ticking the correct box.

Earthquakes occur where plates collide.

True False

[10m]

5. Ordnance Survey Map

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

- (i) Imagine that you are travelling from Kenmare at V 906 713 along the N71 to Moll's Gap at V 861 775.
In what direction would you be travelling?

- (ii) The length of the N70 road from where it enters the map at V 850 698 to where it meets the N71 road at V 905 713 is:

4.2 km

5.8 km

Tick the correct box.

[10m]

6. Ordnance Survey Map

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

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

• V 862 773 _____

• V 918 718 _____

• V 877 676 _____

• V 909 706 _____

- (ii) Indicate the rural settlement pattern found at V 898 719, by ticking the correct box.

Linear

Dispersed

Clustered/Nucleated

[10m]

7. Aerial Photograph - Location

Examine the aerial photograph accompanying this paper, and the sections taken from it below.

Indicate whether the descriptions of the locations of each of the sections from the aerial photograph are correct, by circling the correct option in each case.

One has been completed for you.



Centre Background

True **False**



Left Foreground

True **False**



Centre Middleground

True **False**



Right Middleground

True **False**



Right Background

True **False**



Left Background

True **False**

[10m]

8. Regions

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

Letter	Description of Region	Example of Region	Letter
A	A region of industrial decline	Paris	
B	A peripheral region	Antrim-Derry Plateau	
C	A physical region	Sambre Meuse, Belgium	
D	An administrative region in Ireland	Mezzogiorno	
E	An urban region	Longford County Council	

[10m]

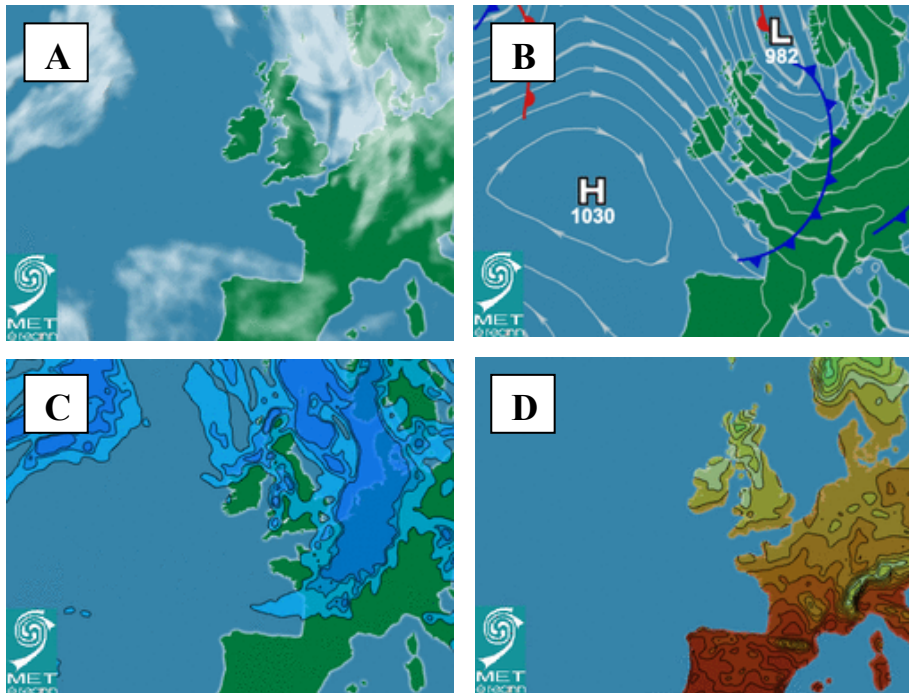
9. Economic Activities

Write the category of economic activity (Primary, Secondary or Tertiary) that best matches each of the occupations, in the table below. One has been completed for you.

Occupation	Category of Economic Activity
Farmer	
Hotel receptionist	
Baker	
Forestry worker	Primary
Furniture maker	
Doctor	

[10m]

10. Weather Charts



Examine the weather charts above and answer each of the following questions.

- (i) Match each weather chart with the element of weather that it represents, by writing the correct letter in each case, in the table below.

Element of Weather	Letter
Temperature	
Rainfall	
Cloud	
Pressure	

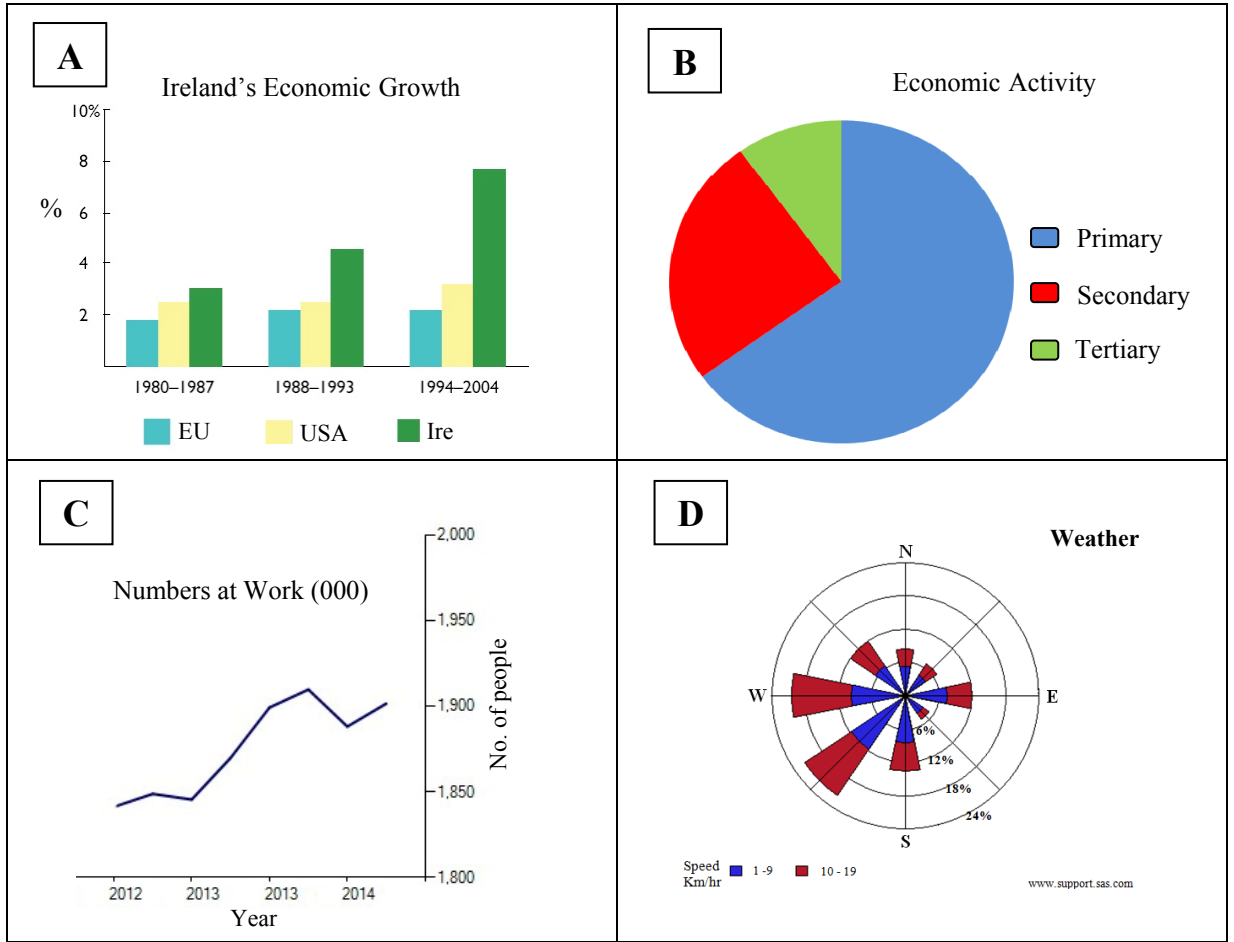
- (ii) Indicate whether the statement below is true or false, by ticking the correct box.

Isobars are lines joining places of equal pressure on a weather chart.

True False

[10m]

11. Statistical Charts



(i) Match each statistical chart with the most suitable title in the table below, by writing the correct letter in each case.

Title	Letter
Pie chart	
Wind rose	
Bar chart	
Trend graph	



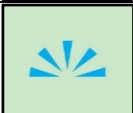
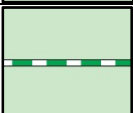
(ii) State **one** advantage of using a graph to present information.

[10m]

12. Symbol Recognition and Scale

Examine the Ordnance Survey map and legend accompanying this paper.

- (i) Match each of the map symbols with the name that best matches it by writing the correct letter in each case, in the table below.

Letter	Symbol	Name of Symbol	Letter
A		Viewpoint	
B		National Secondary Road	
C		Picnic Site	
D		Coniferous Plantation	

- (ii) What is the scale of the Ordnance Survey map accompanying this paper?

[10m]

PART TWO – STRUCTURED QUESTIONS – 300 MARKS

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

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

THESE QUESTIONS ARE TO BE ANSWERED IN THE ANSWER BOOK

SECTION 1 – CORE

Questions 1 to 6

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

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

AND

➤ **ONE** from **Regional Geography**

PATTERNS AND PROCESSES IN THE PHYSICAL ENVIRONMENT

Questions 1 to 3

Attempt **ONE** question

Question 1

A. 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:

- An area of natural woodland
- An area of land above 400 metres
- Dinish Island
- The Kenmare River
- A named lake.

[30m]

B. Surface Processes

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]

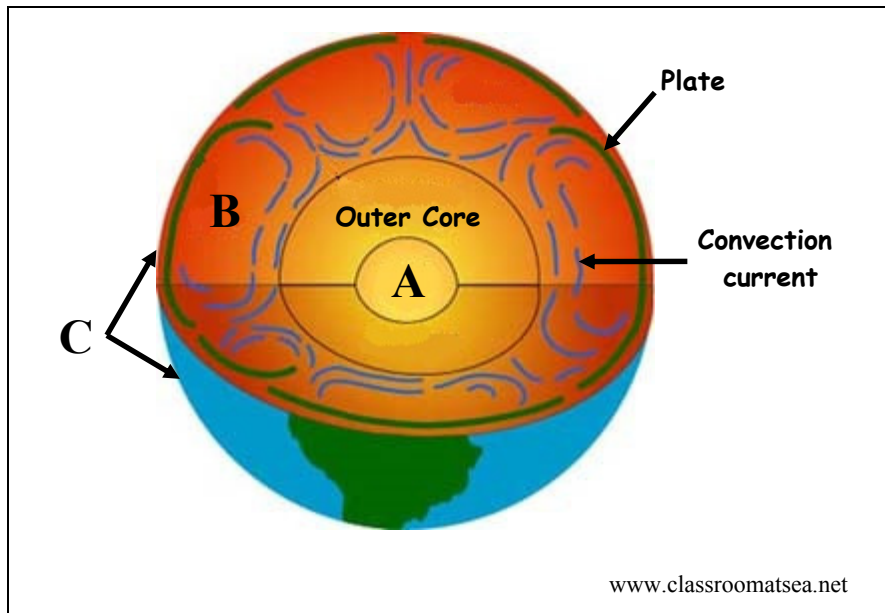
C. Plate Tectonics

Describe and explain the theory of plate tectonics.

[30m]

Question 2

A. Structure of the Earth



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

- (i) In your answer book, name each of the layers of the earth labelled **A**, **B** and **C**.
- (ii) Explain briefly what is meant by the term *plate*.
- (iii) Explain briefly what causes plates to move.

[30m]

B. Rocks

- (i) Name **one** igneous rock, and name **one** metamorphic rock.
- (ii) Name **one** sedimentary rock, and name **one** Irish location where this rock is found.
- (iii) Describe how sedimentary rocks are formed.

[40m]

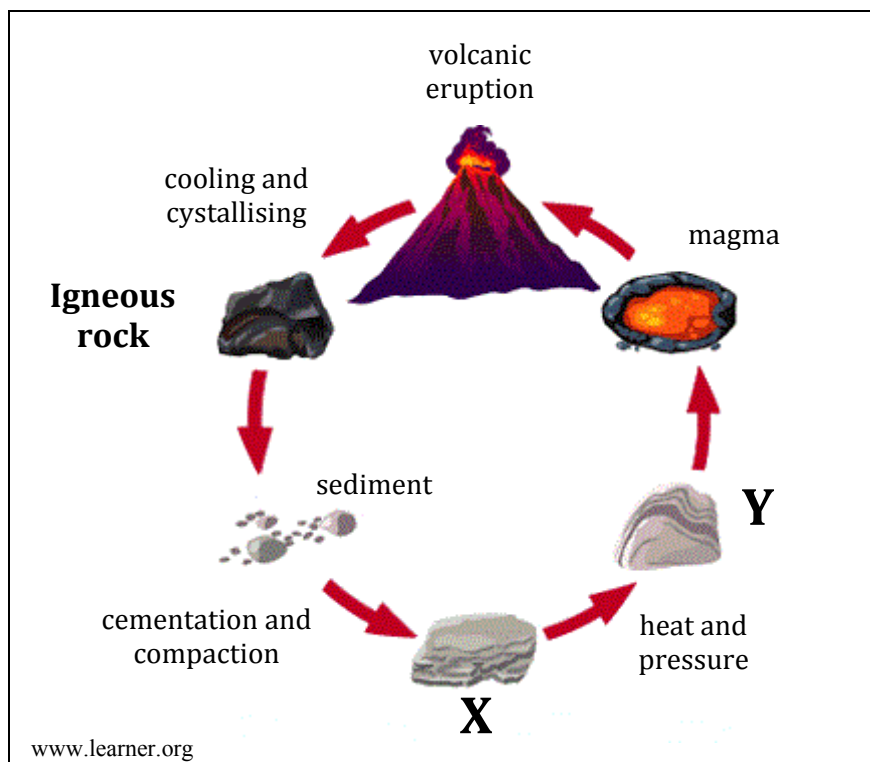
C. Fold Mountains

- (i) Name **one** example of fold mountains.
- (ii) With the aid of a diagram(s), explain how fold mountains are formed.

[30m]

Question 3

A. Rock Cycle



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

- (i) Name the category of rock at **X** and name **one** rock in this category.
- (ii) Name the category of rock at **Y** and name **one** rock in this category.
- (iii) Name any **two** ways rocks are used.

[30m]

B. Volcanoes

- (i) Define and name an example of each of the volcano types listed below:
 - Active volcano
 - Dormant volcano
 - Extinct volcano.
- (ii) Explain in detail how volcanoes occur.

[40m]

C. Human Interaction with Surface Processes

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

- River processes
- Coastal processes
- Mass movement processes.

[30m]

REGIONAL GEOGRAPHY

Questions 4 to 6

Attempt **ONE** question

Question 4

A. Irish Region

Draw a sketch map of Ireland.

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

- **One** region studied by you
- **One** named town or city in this region
- **One** named river in this region
- **One** named area of relief (upland or lowland) in this region.

[30m]

B. Tourism in a European Region

Name a **European** region (**not in Ireland**), that you have studied and answer each of the following questions.

- Name **two** tourist attractions in this region.
- Explain the reasons why tourists are attracted to this region.
- Describe **one** problem associated with tourism in this region.

[40m]

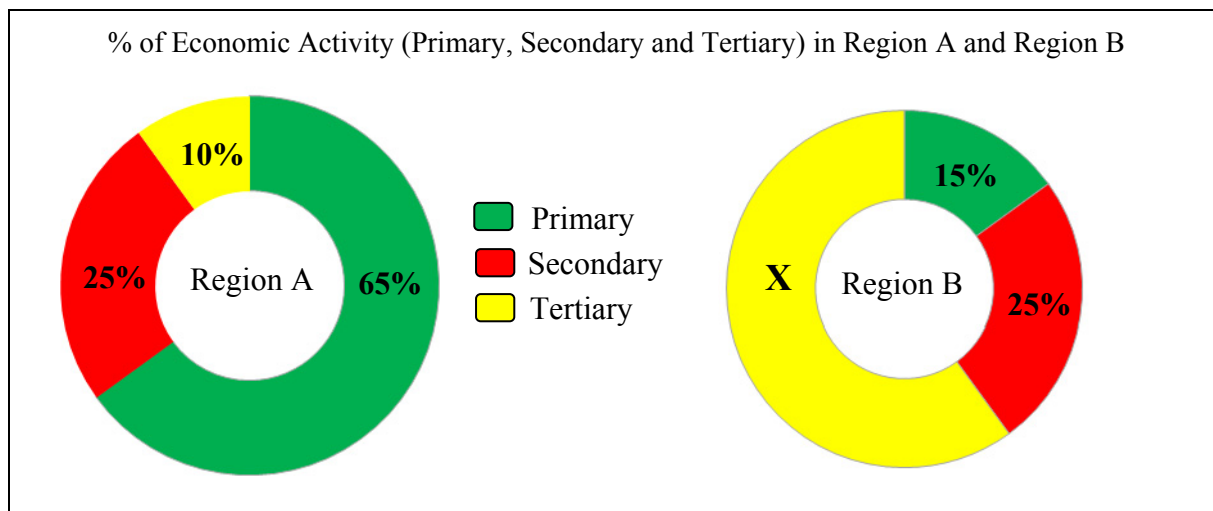
C. Urban Growth in a Continental / Sub-Continental Region

Describe and explain the reasons for the growth of any urban area in a **Continental / Sub-Continental** region (**not in Europe**), that you have studied.

[30m]

Question 5

A. Types of Regions



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

- (i) Calculate **X**, the percentage of tertiary economic activity in Region B.
- (ii) Is Region B a Core or a Peripheral region?
- (iii) Name an example of a Core region and an example of a Peripheral region.
- (iv) Briefly describe **one** characteristic of a Core region.
- (v) Briefly describe **one** characteristic of a Peripheral region.

[30m]

B. Secondary Economic Activities – Irish Region

Discuss how any **two** of the following factors influence the development of manufacturing industry in an **Irish** region that you have studied:

- Availability of transport networks
- Access to raw materials
- Markets
- Government and European Union Policies.

[40m]

C. Regional Development

Describe and explain **two** problems faced by any region that you have studied.

[30m]

Question 6

A. 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:

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

[30m]

B. European Union Expansion

Describe and explain the impacts of European Union expansion on Ireland.

[30m]

C. Primary Economic Activity in a Continental / Sub-Continental Region

Name a **Continental / Sub-Continental** region (**not in Europe**), that you have studied and answer each of the following questions.

- (i) Name **one** primary economic activity that contributes to the economy of this region.
- (ii) Explain the advantages that this region has for the development of the primary economic activity named in part (i) above.
- (iii) Describe **one** problem faced by this primary economic activity in this region.

[40m]

SECTION 2 – ELECTIVES

Questions 7 to 12

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

Patterns and Processes in Economic Activities

OR

Patterns and Processes in the Human Environment

PATTERNS AND PROCESSES IN ECONOMIC ACTIVITIES

Questions 7 to 9

Question 7

A. Aerial Photograph

Examine the aerial photograph of Kenmare accompanying this paper.

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

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

- An area of agricultural land
- **Two** connecting streets
- A roundabout
- A car park
- An area of waste ground.

[30m]

B. European Union Policy

- (i) Examine the positive impacts of European Union policy/policies on Ireland.
- (ii) Examine the negative impacts of European Union policy/policies on Ireland.

[40m]

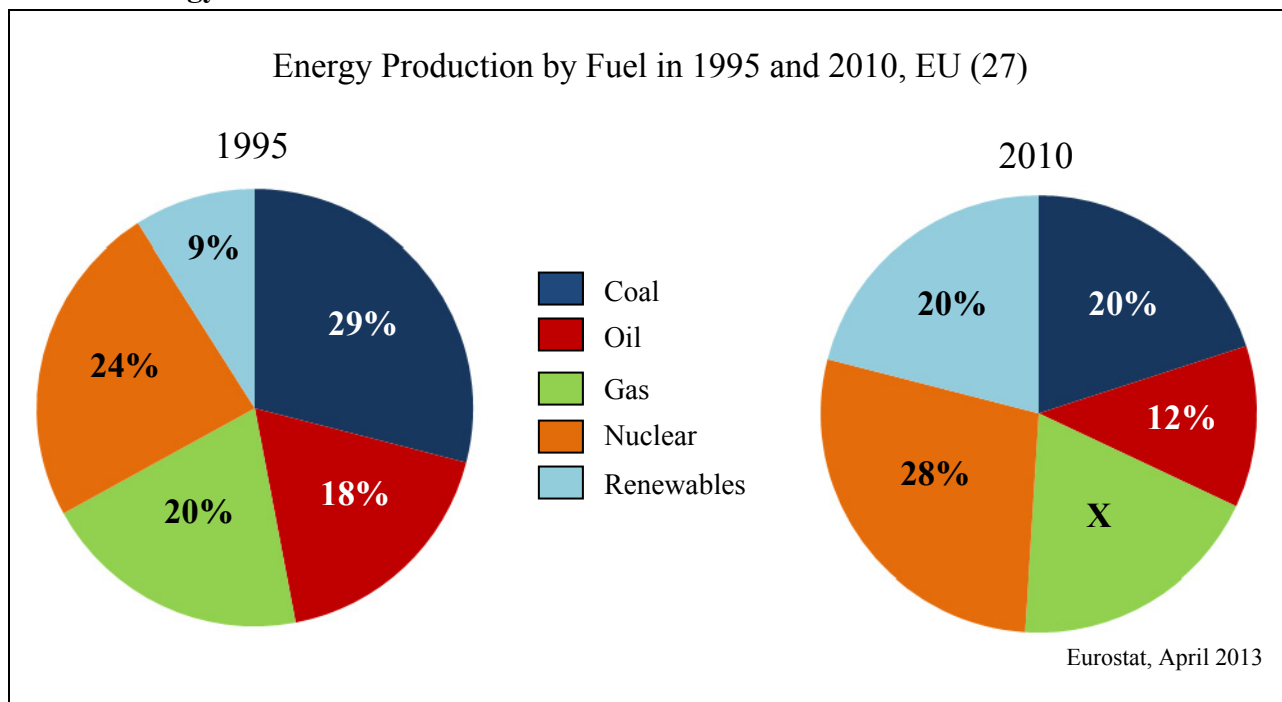
C. Colonialism

- (i) Name **one** developing economy that was colonised.
- (ii) Describe and explain the effects of colonialism on this developing economy.

[30m]

Question 8

A. Energy



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

- (i) Calculate **X**, the percentage of energy produced by gas in 2010.
- (ii) Which fuel increased its energy production the most between 1995 and 2010?
- (iii) Explain briefly why energy production using this fuel type increased.
- (iv) Name **two** sources of renewable energy.
- (v) State **two** effects of burning fossil fuels on the environment.

[30m]

B. Multinational Company (MNC)

- (i) Name **one** multinational company located in Ireland.
- (ii) Name **one** product manufactured by this multinational company and name **one** country (other than Ireland) where this product is sold.
- (iii) State where this multinational company is located in Ireland and explain in detail why it set up at this location.

[40m]

C. Economic Development – Developed Economy

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

- Tourism
- Financial services
- Service and footloose industries.

[30m]

Question 9

A. Economic Development

Human Development Index, 2014

Country	HDI
Niger	0.3
Norway	0.9
Sierra Leone	0.4
Portugal	0.8

Amended from www.undp.org

Examine the table above showing the Human Development Index (HDI) for a number of countries.

- (i) Using graph paper, draw a suitable graph to illustrate this data.
- (ii) In your answer book, explain briefly **one** reason why some countries have a high human development index.

[30m]

B. Environmental Impact

Describe and explain how economic activities impact on the environment, with reference to examples that you have studied.

[30m]

C. Economic Activity and Conflict

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

- (i) State clearly, using a six-figure grid reference, where you would locate a pharmaceutical company.
- (ii) Using evidence from the Ordnance Survey map, explain why you selected this location.
- (iii) Describe how conflict may arise as a result of locating the pharmaceutical company in this area.

[40m]

PATTERNS AND PROCESSES IN THE HUMAN ENVIRONMENT

Questions 10 to 12

Question 10

A. Irish Population

Irish Population by Age Group in 2014

Age Group (years)	%
0-14	21
15-64	66
65-84	11
85+	2

Amended from US Census Bureau

Examine the table above showing Ireland's population by age group in 2014.

- (i) Using graph paper, draw a suitable graph to illustrate this data.
- (ii) In your answer book, state **two** ways that population statistics are used.

[30m]

B. Migration

Migration takes place due to push factors and pull factors.

- (i) Name **one** push factor and **one** pull factor associated with migration.
- (ii) Describe and explain the positive impacts of migration on Ireland.
- (iii) Describe and explain the negative impacts of migration on Ireland.

[40m]

C. Development of Urban Settlements

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

Explain **three** reasons why the town of Kenmare developed at this location, using evidence from the Ordnance Survey map to support each reason.

[30m]

Question 11

A. Ordnance Survey Map - Historic Settlement

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 **name** each of the following:

- The built up area of Kenmare
- **Four different** examples of historic settlement evident on the map.

[30m]

B. Traffic in Urban Areas

- (i) Name **one** city where traffic congestion is a problem.
- (ii) Explain the reasons why traffic congestion occurs in this city.
- (iii) Describe **one** solution to traffic congestion.

[40m]

C. Population

‘Birth rates are influenced by many factors including income levels, culture and society and medical technology.’

Describe and explain the factors that influence birth rates.

[30m]

Question 12

A. Population Growth

Currently, the size of the Earth's population is 7.2 billion people. It is predicted that the Earth's population could be as high as 12.3 billion people by 2100. Infectious diseases like Ebola spread faster in densely populated areas. Scientists warn that the rising population could worsen world problems such as climate change, infectious disease and poverty.

Most of the growth is expected to take place in Africa, where the population is expected to increase from around one billion today to four billion by the end of the century.

In sub-Saharan Africa, fertility levels remain high and large families – typically with more than four children – are still common.

Reductions in the death toll from HIV/Aids are said to be another contributing factor to the African trend.

Amended from *Irish Examiner*, September 18th 2014

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

- (i) According to the article, what is the current size of the Earth's population and what is the predicted population by 2100?
- (ii) **Calculate** the predicted increase in the Earth's population by 2100.
- (iii) Name **one** problem mentioned in the article that could be made worse by this predicted increase in population.
- (iv) Where is most of the population growth expected to take place?
- (v) Explain briefly why this area is predicted to have the most growth in population.
- (vi) Explain briefly **one** advantage of predicting population figures.

[30m]

B. Developing World City

- (i) Name **one** city in the developing world.
- (ii) Describe and explain reasons for the rapid growth of this city.

[30m]

C. Population Density and Distribution

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

- (i) Give a four-figure grid reference for an area on the map where there is an **absence** of settlement.
- (ii) Explain in detail, using map evidence, why there is an **absence** of settlement at this location.
- (iii) Give a four-figure grid reference for an area on the map which has a relatively **high** population density.
- (iv) Explain in detail, using map evidence, why there is a relatively **high** population density at this location.

[40m]

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