



Coimisiún na Scrúduithe Stáit State Examinations Commission

LEAVING CERTIFICATE EXAMINATION, 2010

GEOGRAPHY – ORDINARY LEVEL

FRIDAY, 11 JUNE – MORNING, 9.30 to 12.20

Examination Number

For the Examiner's Use Only

Part One Short-Answer Questions	Total Marks	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			

N.B. Remember to return this paper with your answer book.

Otherwise, marks will be lost.

PART ONE – SHORT-ANSWER QUESTIONS – 100 MARKS

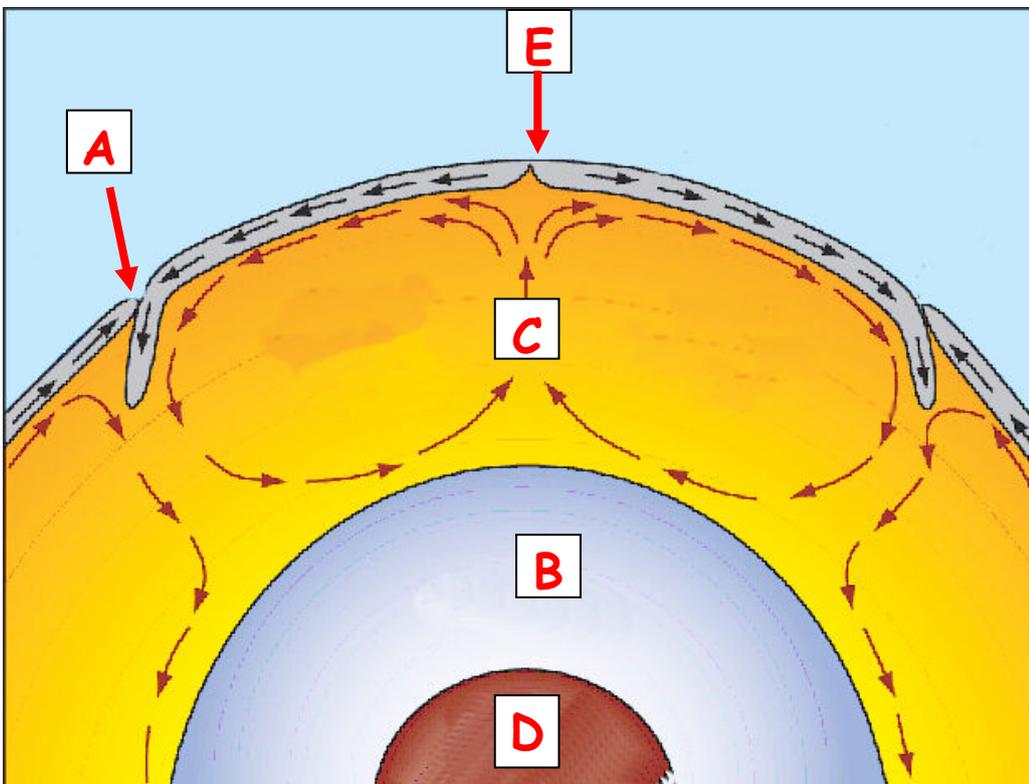
Attempt **TEN** questions.

All Questions carry equal marks.

THESE QUESTIONS ARE TO BE ANSWERED IN THE SPACES PROVIDED

1. Cross-section of the Earth

Examine the diagram below and match each of the letters in the diagram with **one** of the descriptions in the box below.



www.earth.com

Description	Letter
Outer Core	
Mantle convection current	
Inner Core	
Mid-Ocean Ridge	
Ocean Trench	

[10 marks]

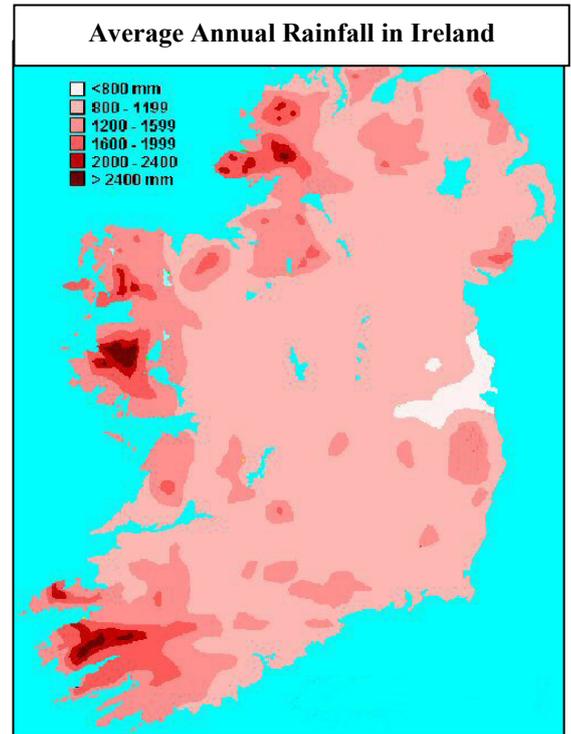
2. Ireland's Climate

Examine the map showing annual rainfall in Ireland.

- (i) Read the statement below and circle the correct answer:

In Ireland rainfall is heaviest in the

East / West.



www.met.ie

- (ii) Which of the following weather systems is responsible for most of Ireland's rainfall?
Place an **X** in the correct box below.

▪ Depression / Cyclone

▪ Anticyclone

- (iii) Examine the table below showing total rainfall for Claremorris, Co Mayo and answer the following questions:

Total rainfall in millimetres for Claremorris, 2009

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfall (mm)	149.6	21.9	55.5	109.3	111.0	46.6	131.7	175.1	42.2	91.9	285.4	87.7

www.met.ie

(a) Which month had the lowest rainfall? _____

(b) Which month had the highest rainfall? _____

(c) Name one consequence of the high level of rainfall in Ireland in November.

[10 marks]

3. Regions

Match the **region type** (letter) with a named **example in Europe** (number) in the box provided.

	Region Type		Example in Europe
A	Cultural	1	Mediterranean
B	Urban	2	Munster Ridge and Valley
C	Core Economic	3	Paris Basin
D	Geomorphological	4	Irish Gaeltacht
E	Climatic	5	Athlone Town

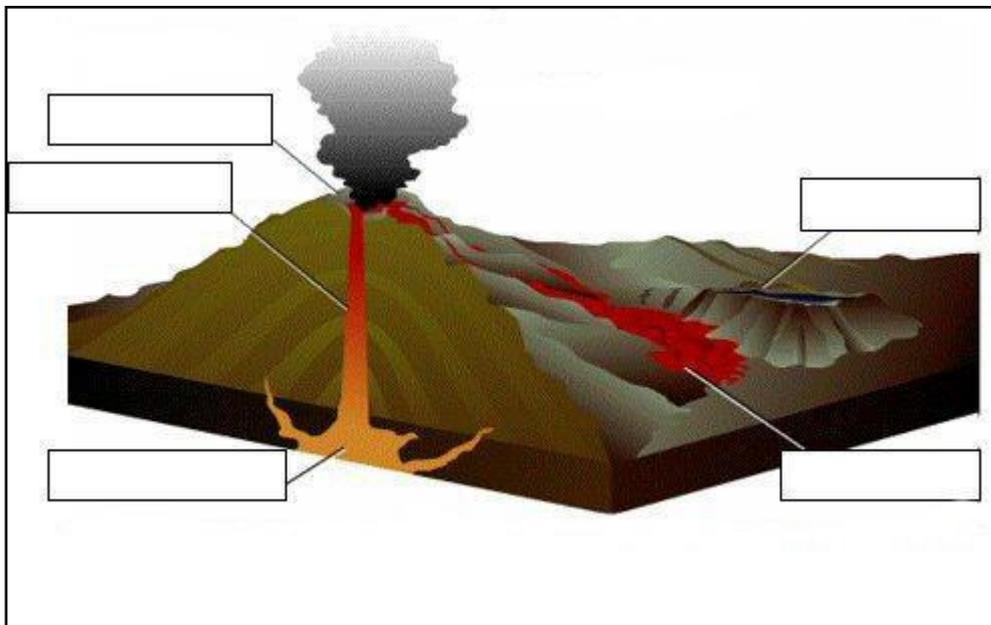
Letter	Number
A	
B	
C	
D	
E	

[10 marks]

4. Volcanic Landforms

Examine the diagram below. Use the following terms to fill in the blanks on the diagram:

Vent	Crater	Magma chamber	Lava flow	Caldera lake
------	--------	---------------	-----------	--------------



www.pacificislandtravel.com

[10 marks]

5. Ordnance Survey Map

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

- (i) Measure the distance along the R 697 from where it joins the map at S 421 300 to where it crosses the railway line in Carrick-on-Suir at S 405 222.
Write the correct answer in the box below.

- (ii) Imagine that you are driving **west** along the N24 from Carrick-on-Suir. What type of plantation (see legend) would you see if you look **south** across the river?
Write the correct answer in the box below.

[10 marks]

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:

- S 415 220 _____
- S 362 235 _____
- S 432 226 _____
- S 402 203 _____

- (ii) What is the height of the land at the Triangulation Pillar at Kilmacoliver Hill S 432 283 on the map?
Write the correct answer in the box below.

[10 marks]

7. Aerial Photograph and Ordnance Survey Map

- (i) Examine the aerial photograph of Carrick-on-Suir accompanying this paper.

Using accepted notation (right background etc.) write the location of:

A castle _____

A church _____

A marina with boats _____

- (ii) Use the aerial photograph **and** the 1:50,000 Ordnance Survey map of Carrick-on-Suir to answer each of the following:

Name the **modern** bridge in the left middleground of the aerial photograph.
Write the correct answer in the box below.

What is the six-figure grid reference for this bridge?
Write the correct answer in the box below.

[10 marks]

8. Karst Landscape

Select the correct words from the table to complete the paragraph below.

Clints
Pavement
Limestone
Grikes
Carbonation



www.org.uk/gallery

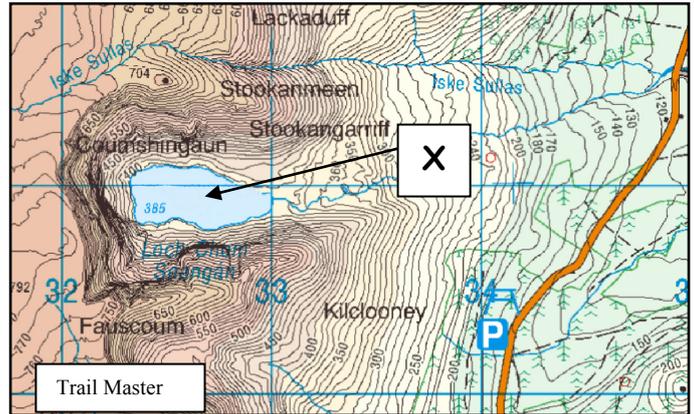
The sedimentary rock in the photograph is called _____. It is weathered by the process of _____. This dissolves calcium carbonate in the rock to form deep grooves called _____. These grooves are separated from each other by upright blocks called _____. This forms a landscape which is known as a Limestone _____.

[10 marks]

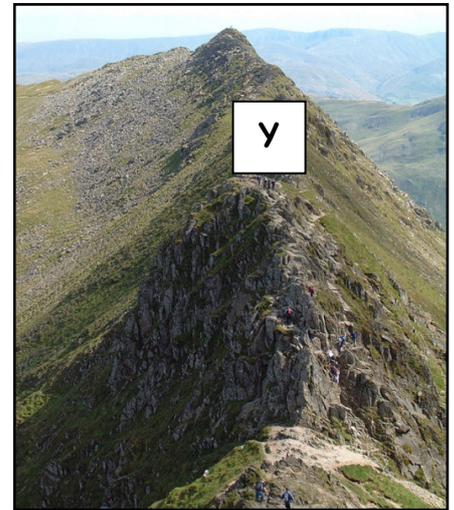
9. Coastal and Glacial Features

Study the Ordnance Survey and photograph extracts below and answer the questions that follow:

- (i) Name the glacial feature marked **X** on the map.
Write its correct name in the box below.



- (ii) Name the glacial feature marked **Y** on the photograph.
Write its correct name in the box below.



- (iii) Were features **X** and **Y** formed by the process of Erosion or Deposition?
Write the correct answer in the box below.

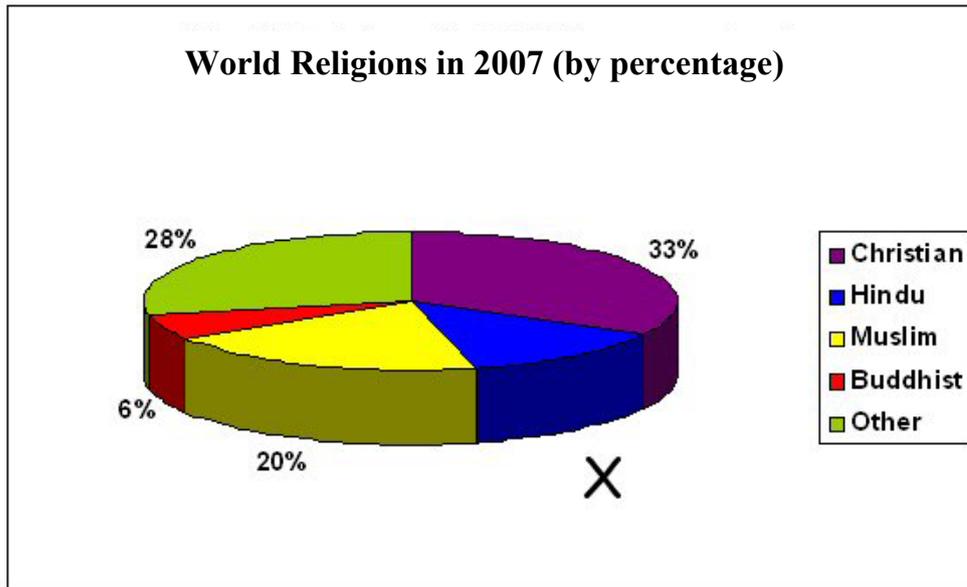
- (iv) Name the coastal feature marked **Z** on the photograph.
Write its correct name in the box below.

- (v) Was feature **Z** formed by the process of Erosion or Deposition?
Write the correct answer in the box below.



[10 marks]

10. World's Religions



Study the above chart which shows world religions in 2007 and answer the following questions:

(i) What was the **largest** religion in 2007?

(ii) Which was the **smallest** religion in 2007?

(iii) What is the difference between the percentage of the largest religion and the percentage of the smallest religion in 2007?

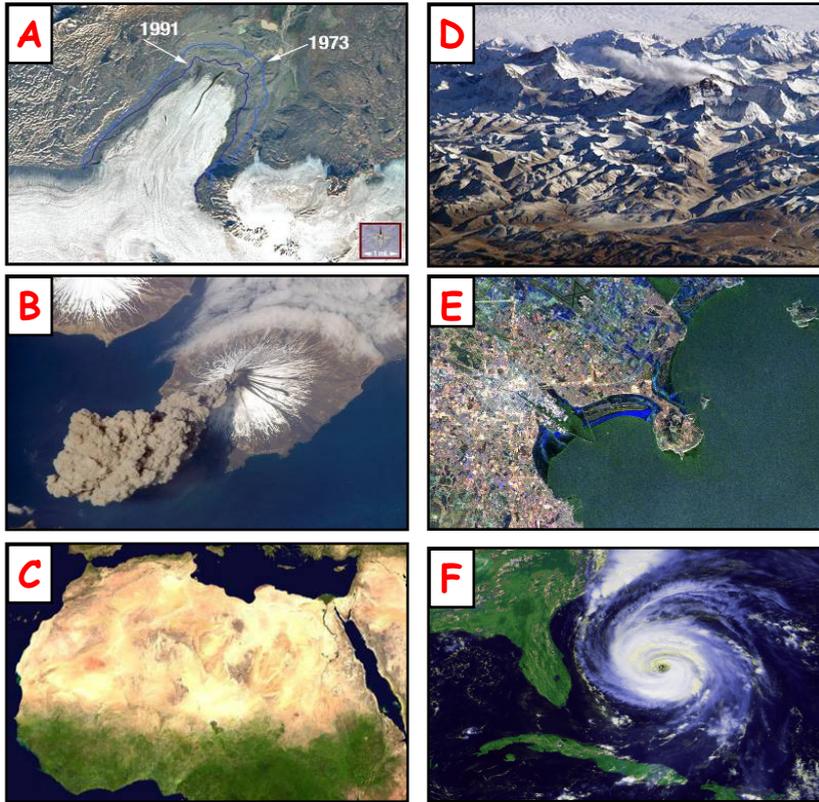
(iv) Calculate the percentage of Hindu, labelled **X**, in 2007.

(v) Name another type of graph or chart that could be used to present this data.

[10 marks]

11. Satellite Images

Study the satellite images and match the description in the table below with the correct image. One has been completed for you.

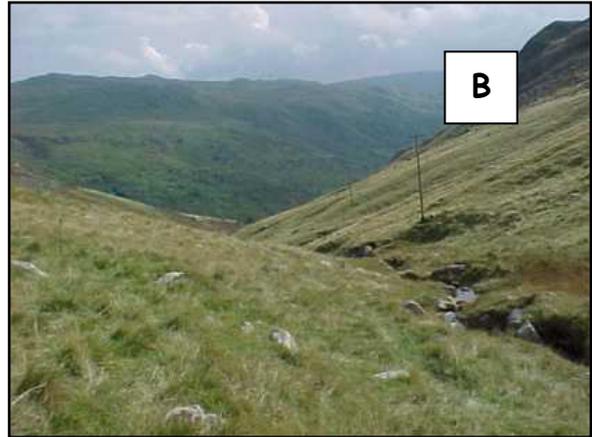
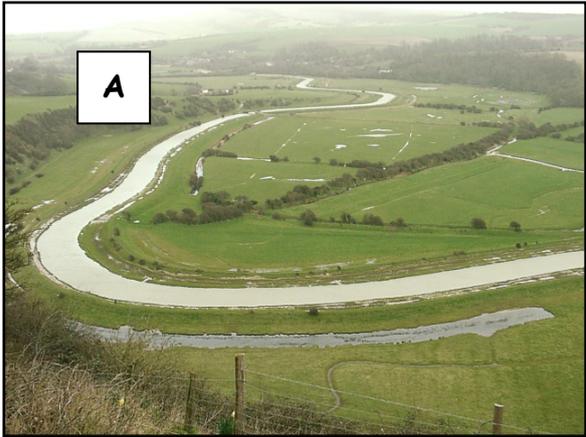


www.nasa.gov

Description	Image
Hurricane	
A retreating glacier	
An urban area	
A desert	
Mount Everest in the Himalayas	D
An erupting volcano	

[10 marks]

12. River Landforms



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

Landform	Letter
Waterfall	
Interlocking Spur	
Meander	

- (ii) State **one** reason why farming might be popular in the floodplain of a river valley.

- (iii) State **one** reason why farming might not be popular in the floodplain of a river valley.

[10 marks]

PART TWO – STRUCTURED QUESTIONS – 300 MARKS

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

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

THESE QUESTIONS ARE TO BE ANSWERED IN THE ANSWER BOOK

SECTION 1 – CORE

Questions 1 to 6

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

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

AND

ONE from **Regional Geography**

PATTERNS AND PROCESSES IN THE PHYSICAL ENVIRONMENT

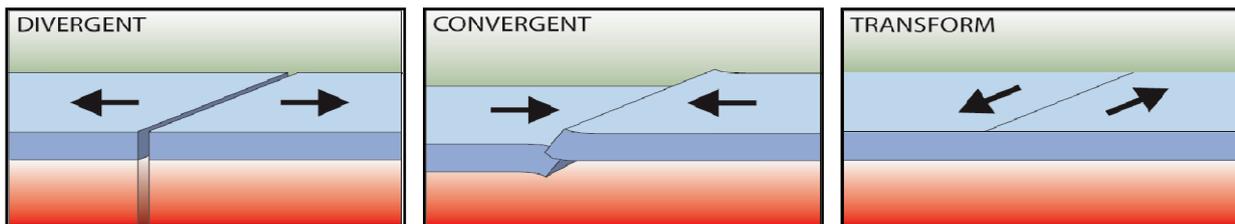
Questions 1 to 3

Attempt **ONE** question

Question 1

A. Plate Boundaries

Study the diagrams below and answer the following questions in your answer book:



www.earth.com

(i) Match each of the descriptions below with the correct plate boundary above:

- Plates pushing together
- Plates sliding past each other
- Plates pulling apart.

(ii) At which of the above plate boundaries is the Mid-Ocean Ridge?

(iii) At which of the above plate boundaries would you find Fold Mountains?

(iv) Name an example of Fold Mountains.

[30 marks]

B. Surface Processes

Answer (i) or (ii)

(i) Describe and explain any **one** process of mass movement.

OR

(ii) Select any **one** of the following surface processes:

- Sea / marine action
- River action
- Glacial action.

Explain with the aid of a diagram(s) the formation of any **one** Irish landform resulting from your selected process.

[30 marks]

C. Human Interaction with the Rock Cycle

Humans interact with the rock cycle in many ways. These include:

- Oil and gas exploration
- Mining
- Quarrying
- Geothermal energy production.

With reference to an example you have studied explain **one** of the interactions listed above in detail.

[40 marks]

Question 2

A. Ordnance Survey Map

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

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

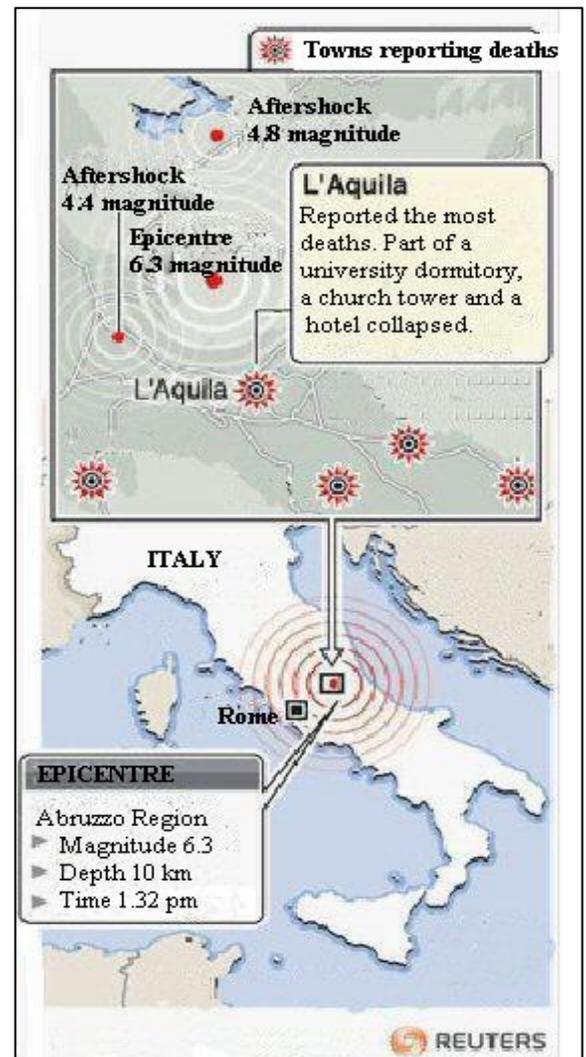
- The River Suir
- A **named** hill
- A 'Waymarked Walk' called the South Leinster Way
- An area of land over 200 metres north of the River Suir
- A meander on the River Suir (Please mark on your sketch map with an X).

[30 marks]

B. Earthquakes

Study the map of an earthquake in Italy and answer the following questions in your answer book:

- What was the **magnitude** (strength) of the earthquake at the epicentre?
- At what **time** did the earthquake take place?
- How **many** towns reported deaths as a result of the earthquake?
- Explain in detail how earthquakes occur.



[40 marks]

C. Human Interaction

With reference to an example which you have studied, describe and explain how humans attempt to control **one** of the following processes:

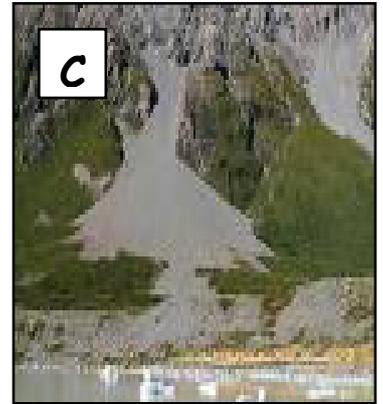
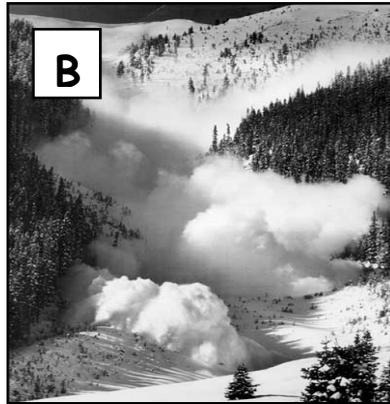
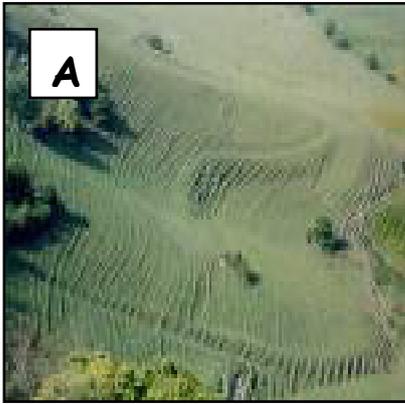
- River processes
- Sea processes
- Mass movement.

[30 marks]

Question 3

A. Mass Movement and Weathering

Study the images of mass movement and weathering below.



In your answer book:

(i) Match each of the images with the correct term below:

- Scree
- Soil Creep
- Avalanche.

(ii) State whether each image is as a result of mass movement or weathering.

[30 marks]

B. Rocks

(i) Name any **one** type of sedimentary rock.

(ii) Give a **specific location** in Ireland where this sedimentary rock can be found.

(iii) Describe how sedimentary rock is formed.

[40 marks]

C. Weathering

Weathering is the process where rock and soil is broken up and can be caused by:

- Freeze Thaw Action
- Carbonation.

Describe and explain any **one** of these weathering processes.

[30 marks]

REGIONAL GEOGRAPHY

Questions 4 to 6

Attempt **ONE** question

Question 4

A. Map Skills

Draw a sketch map of a **Continental / Sub-Continental** region which you have studied. On it **mark** and **name**:

- One named river
- Two named towns or cities
- One named mountain.

[30 marks]

B. Agriculture in Ireland

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

- Relief and soils
- Climate
- EU Policies
- Markets.

Clearly state the name of the region in your answer.

[40 marks]

C. Tourism

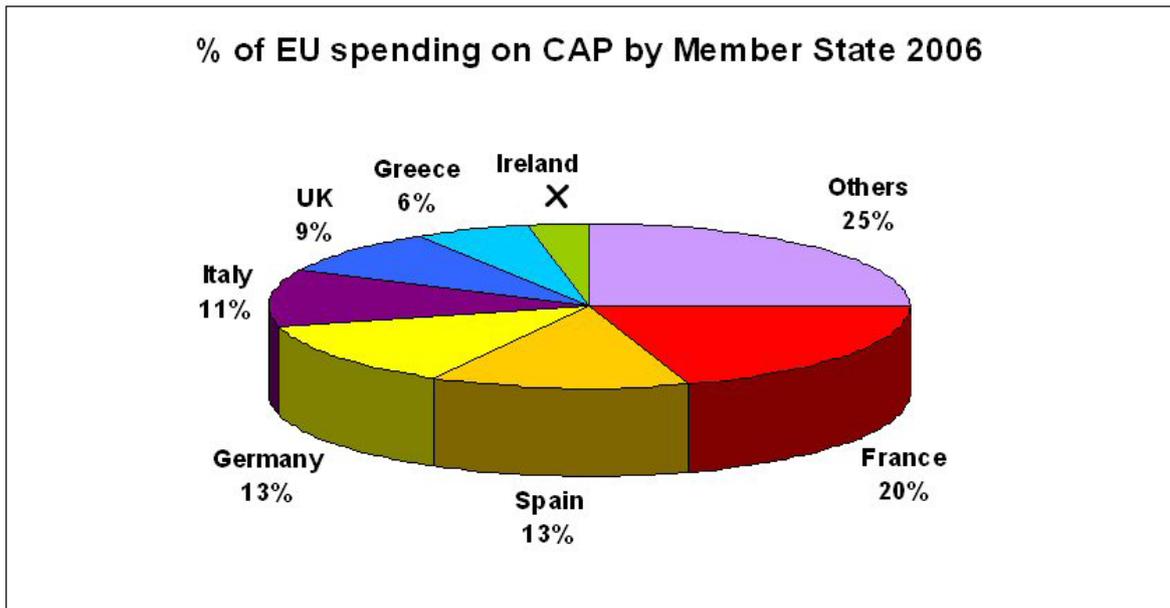
Explain **two** advantages of tourism for the economy of a **European region (not in Ireland)** you have studied.

Clearly state the name of the region in your answer.

[30 marks]

Question 5

A. European Union Policy



Examine the pie-chart above showing the percentage of European Union spending on the CAP, by member state. Answer the following questions in your answer book:

- (i) What do the letters CAP represent?
- (ii) Calculate the percentage of EU spending on CAP in Ireland, labelled X, on the pie-chart.
- (iii) Name one other EU member state not named in the pie-chart above.
- (iv) List two ways Ireland benefited from the CAP.

[30 marks]

B. European Region

Describe the development of manufacturing industry in a **European region (not in Ireland)** which you have studied.

Clearly state the name of the region in your answer.

[40 marks]

C. Urban Regions

Explain **two** reasons for the growth of **one** urban area in any region you have studied.

Clearly state the name of the urban area in your answer.

[30 marks]

Question 6

A. Ireland - Regions

Draw a sketch map of Ireland.

On it **mark** and **name**:

- One region studied by you
- One named river in the region
- One named mountain in the region
- One airport or port in the region.

[30 marks]

B. Continental / Sub-Continental Regions

Name any one **Continental / Sub-Continental** region that you have studied.

Describe the development of **one** of the following in that region:

- Tourism
- Agriculture.

[30 marks]

C. European Expansion and Ireland

In 2004 ten new countries joined the European Union.

- (i) Name and describe **one** positive effect this has had on **Ireland**.
- (ii) Name and describe **one** problem which this has created for **Ireland**.

[40 marks]

SECTION 2 – ELECTIVES

Questions 7 to 12

You **MUST** attempt **ONE** question From **EITHER**

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. Statistics

Irish Unemployment Rates

Year	% Unemployed
2007	4.6
2008	6.4
2009	11.6
2010	14.8

The table above shows the percentage of unemployed people in Ireland in 2007, 2008, 2009 and the predicted percentage for 2010.

- (i) Use **graph paper** to draw a graph to represent this data.
- (ii) In your answer book briefly explain why unemployment in Ireland is rising.

[30 marks]

B. Developing Economies

‘Colonialism has hindered the economic development of some countries.’

With reference to a developing country or region that you have studied, describe **two** ways in which colonialism has limited that area’s development.

[30 marks]

C. Multinational Companies

- (i) Give the **name** and **location** of one multinational company you have studied.
- (ii) Name **one** product manufactured by your named multinational company.
- (iii) Describe and explain **two** reasons why your named multinational company located where it did.

[40 marks]

Question 8

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 and on it **mark** and **name** the following:

- The built up area of Carrick-on-Suir
- The railway line
- The N24 National Primary Road
- An electricity transmission line
- A mast in the north of the map.

[30 marks]

B. Acid Rain

- Explain how acid rain occurs.
- Name and describe **two effects** of acid rain.
- Suggest **two actions** that could be taken to reduce these effects.

[40 marks]

C. Economic Activities and Conflict



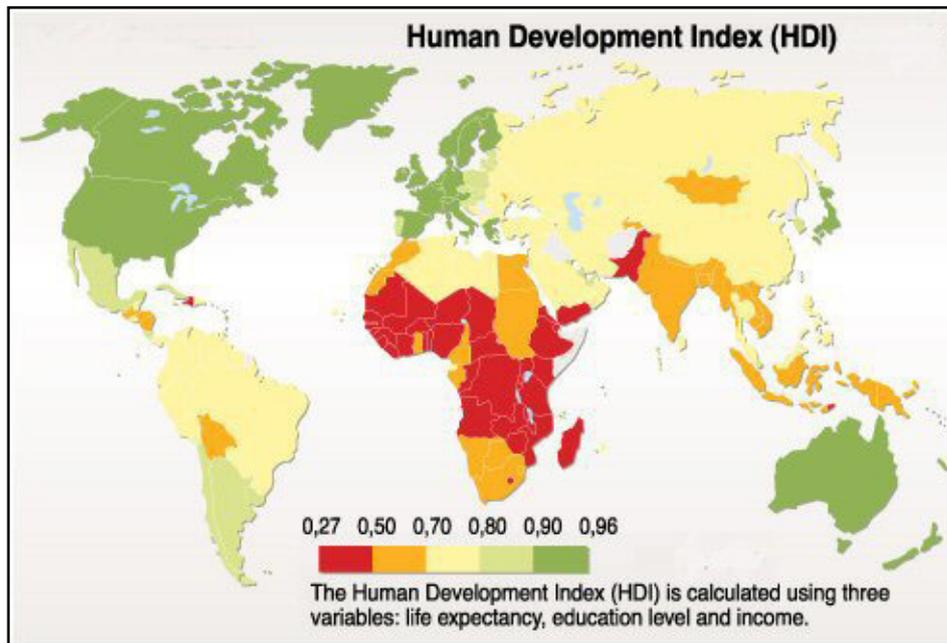
‘The development of economic activities and the exploitation of natural resources can lead to conflict between local interests.’

Discuss this statement with reference to **one** example that you have studied.

[30 marks]

Question 9

A. Economic Development



Study the map above and answer the following questions:

- (i) What do the letters HDI represent?
- (ii) Name the **three** variables used to calculate the HDI.
- (iii) In which category of HDI is Ireland?
- (iv) Explain briefly why the HDI for Africa is low.
- (v) GDP is another measure of economic development. What do the letters GDP represent?

[30 marks]

B. Aerial Photograph

Examine the aerial photograph accompanying this paper.
Imagine you have the task of finding a suitable location for building a **new factory** near the town of Carrick-on-Suir.

- (i) State clearly where you would locate the factory by using accepted notation (left background etc.).
- (ii) Explain **one** reason in favour of this location.
- (iii) Explain **one** reason why local people might object to the building of the factory.

[30 marks]

C. Ireland and the European Union

The Irish economy receives funding from the European Union through the following:

- Common Agricultural Policy
- Common Fisheries Policy
- Regional Development Fund.

Choose any **one** of the above and explain in detail **two** ways it benefits the Irish economy.

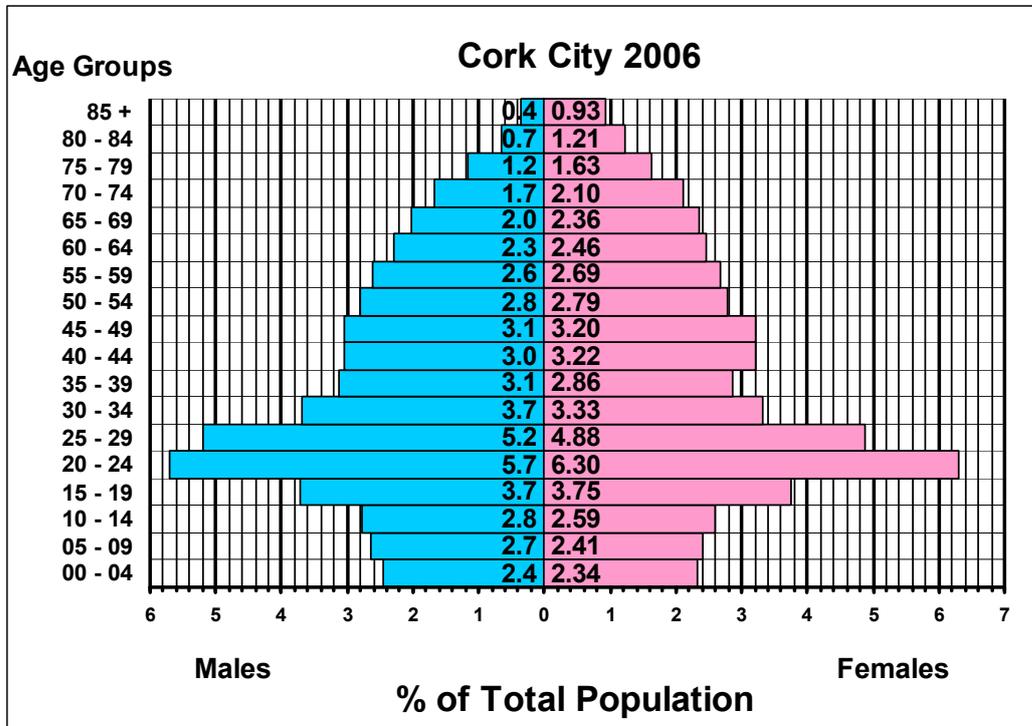
[40 marks]

PATTERNS AND PROCESSES IN THE HUMAN ENVIRONMENT

Questions 10 to 12

Question 10

A. Population Structure



Examine the population pyramid above for Cork City and answer the following questions:

- (i) What percentage of females is in the 10 - 14 year age group?
- (ii) Which age group is the largest?
- (iii) Which is greater the percentage of males or females in the 80 - 84 age group?
- (iv) Calculate the percentage of children, both males and females in the 0 - 4 age group.
- (v) Explain **one** way this population pyramid differs from the population pyramid of a city in the developing world.

[30 marks]

B. Migration

- (i) Describe and explain **one positive** effect of people migrating.
- (ii) Describe and explain **one negative** effect of people migrating.

[30 marks]

C. Settlement Patterns

- (i) Name and give the location by grid reference of any **two** rural settlement patterns evident on the Ordnance Survey map accompanying this paper.
- (ii) Explain the development of these patterns in detail.

[40 marks]

Question 11**A. Population Dynamics****Infant Mortality Rates, 2009**

Country	Infant mortality rate (deaths/1,000 live births)
Kenya	55
India	30
US	6
Ireland	5

www.unicef.com

- (i) Use **graph paper** to draw a graph to represent this data.
- (ii) In your answer book explain why infant mortality rate is higher in developing countries such as Kenya?

[30 marks]

B. Development of Towns

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

Using the map **and** the photograph explain **three** reasons why the town of Carrick-on-Suir developed at its present location.

[40 marks]

C. Growth of Cities in the Developing World

- (i) Name **one** city in the developing world which has grown rapidly in recent years.
- (ii) State **one** reason why this city has grown rapidly.
- (iii) Describe **one** problem caused by this rapid growth.
- (iv) Explain **one** solution to this problem.

[30 marks]

Question 12

A. Land Use in Cities

Examine the aerial photograph accompanying this paper.

Draw a sketch map of the area shown on the photograph. On your sketch map **mark** and **name** the following:

- A church
- A recreational (leisure) area
- The main street (Central Business District)
- A modern residential (housing) area
- A bridge.

[30 marks]

B. Over-population

‘Some parts of the world are over-populated. Over-population occurs when there are too many people in a region relative to the resources available to provide an adequate standard of living.’

- (i) Name any **one** region of the world that is over-populated.
- (ii) Explain in detail **one** cause of the over-population in the region you have named.
- (iii) Describe in detail **one** problem caused by over-population.
- (iv) Suggest **one** solution to the problem of over-population.

[40 marks]

C. Changing Urban Functions

Explain **two** functions of an urban area studied by you.

Clearly state the name of the urban area in your answer.

[30 marks]

Blank Page