

WARNING

You must return this paper with your answer book, otherwise marks will be lost.

Write your Examination Number here

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**Coimisiún na Scrúduithe Stáit
State Examinations Commission**

JUNIOR CERTIFICATE EXAMINATION, 2009

GEOGRAPHY - HIGHER LEVEL

SECTION 1 - FOLDER

FRIDAY, 5 JUNE - AFTERNOON, 2.00 to 4.00

SECTION 1 (60 MARKS)

ALL questions to be answered.

You have an either / or choice *within* 3 questions.

Be sure to return this folder with your answer book.

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1. ROCKS

Which of the following are **all** examples of **sedimentary rocks**? [Tick (✓) the correct box.]

(i) Granite, limestone and quartzite ☐

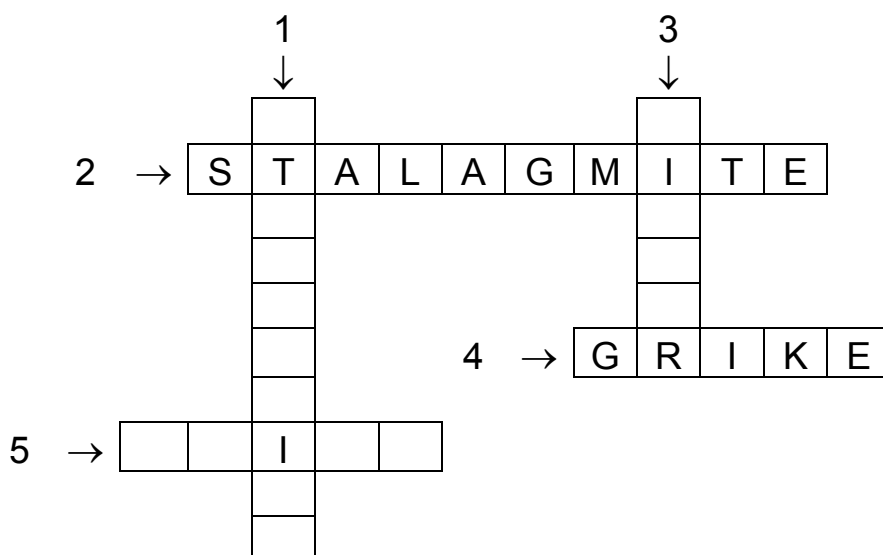
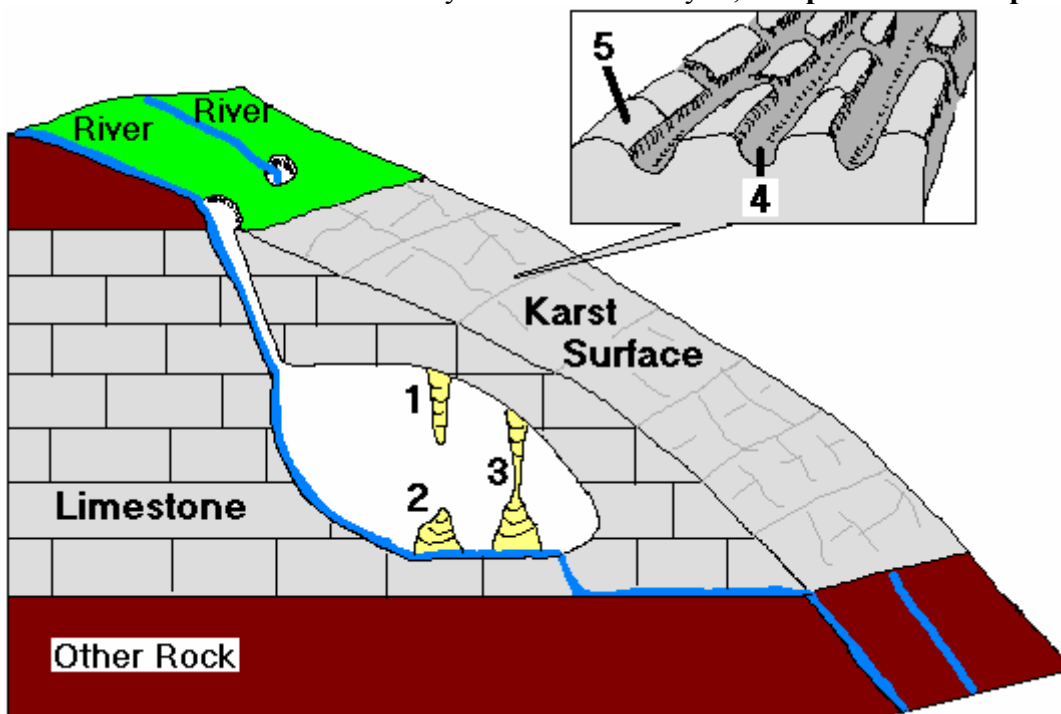
(ii) Granite, marble and quartzite ☐

(iii) Marble, coal and sandstone ☐

(iv) Sandstone, limestone and shale ☐

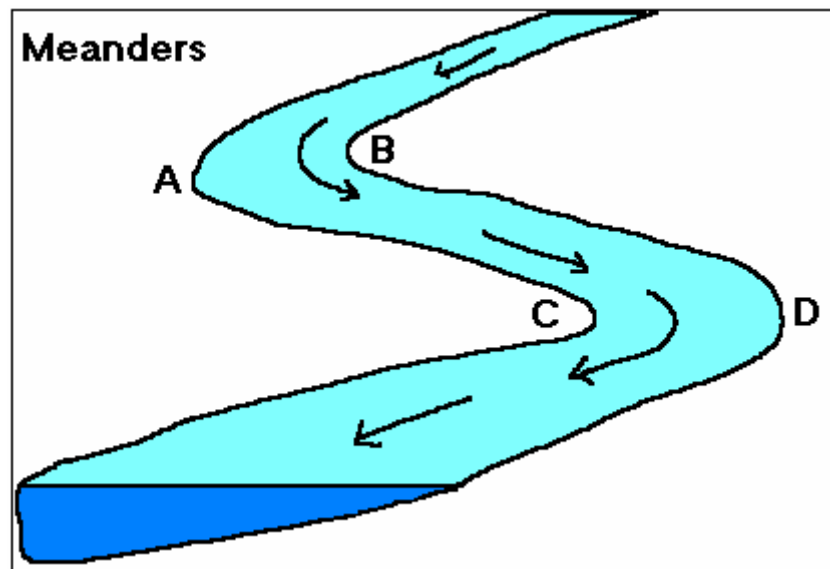
2. LIMESTONE FEATURES

The names of the features labelled **1 to 5** in the diagram solve the word puzzle below.
Features 2 and 4 have already been entered for you, **complete the word puzzle**.



3. RIVER EROSION AND DEPOSITION

The diagram shows river meanders. The statements below refer to the diagram. One of the statements is correct. Tick (✓) the box opposite the correct statement.



The river is:

- (i) Eroding at **B** and depositing at **A** ☐
- (ii) Eroding at **B** and depositing at **C** ☐
- (iii) Eroding at **A** and depositing at **C** ☐
- (iv) Eroding at **C** and depositing at **D** ☐

4. FISHING

Circle the correct option in **each** of the statements below:

- (i) Fish are a **renewable** / **non-renewable** natural resource.
- (ii) To locate fish modern fishing boats use **motorised winches** / **echo sounders**.
- (iii) Fish stocks have been seriously depleted in the Irish Sea because of
global warming / **over-fishing**.

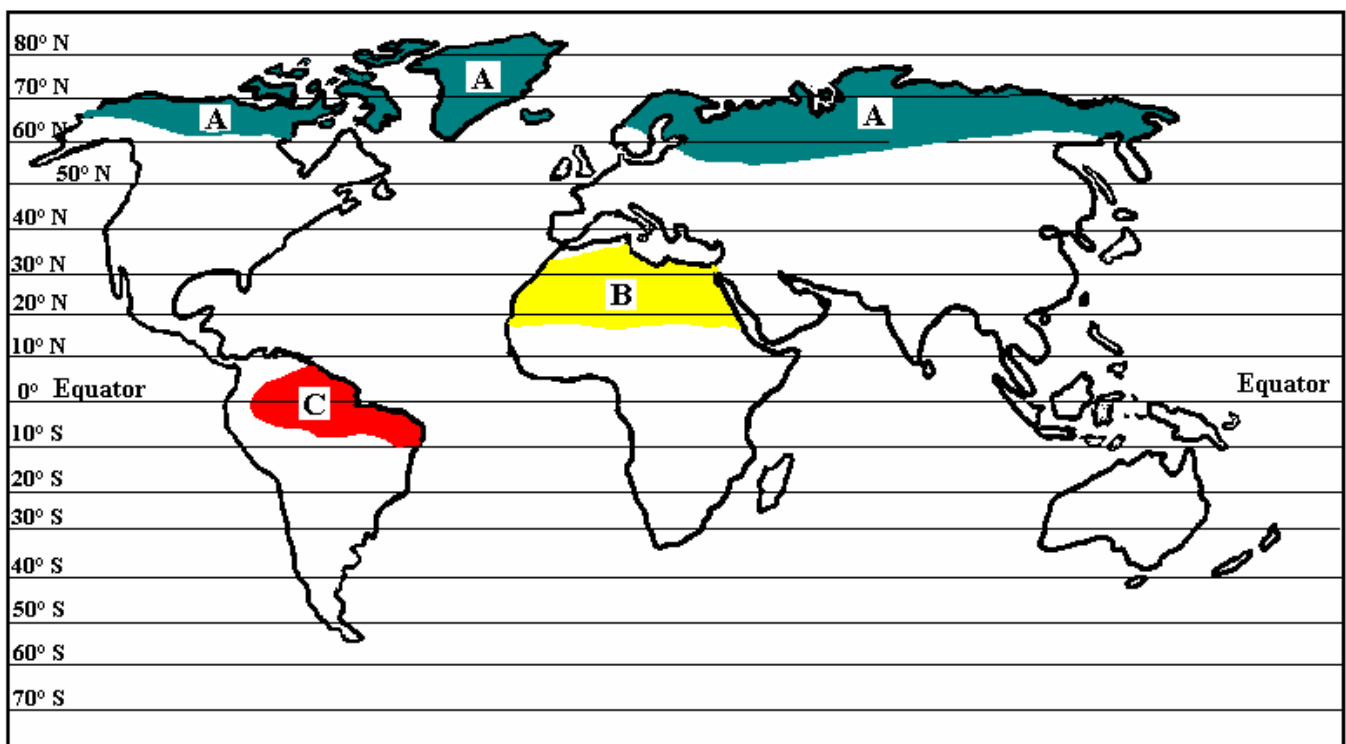
5. ECONOMIC ACTIVITIES

The box below contains a number of primary, secondary and tertiary economic activities. Circle **three** primary economic activities that appear in the box.

<i>teacher</i>	<i>baker</i>	<i>factory worker</i>	<i>fisherman</i>
<i>lawyer</i>	<i>shop assistant</i>	<i>farmer</i>	<i>taxi driver</i>
<i>garda</i>	<i>mine worker</i>	<i>mechanic</i>	<i>tourist guide</i>

6. CLIMATES

The map shows the location of each of **three** climate types.



Name the climate in **each** region shown in the spaces provided.

- (i) The climate in region A: _____
- (ii) The climate in region B: _____
- (iii) The climate in region C: _____

ANSWER EITHER 7A OR 7B

7A. THE WORK OF MOVING ICE

Which of the following are **all features of glacial erosion**?
Tick (✓) the correct box.

- | | | |
|-------|--------------------------------------|--------------------------|
| (i) | Fjord, moraine, pyramidal peak | ☐ |
| (ii) | Arête, cirque, U-shaped valley | ☐ |
| (iii) | Boulder clay, cirque, hanging valley | ☐ |
| (iv) | Arête, cirque, drumlin | ☐ |

OR

7B. THE WORK OF THE SEA

Which of the following are **all features of sea erosion**?
Tick (✓) the correct box.

- | | | |
|-------|---------------------------------|--------------------------|
| (i) | Blow hole, headland, tombolo | ☐ |
| (ii) | Blow hole, sea cliff, sea stack | ☐ |
| (iii) | Beach, sea arch, sea cave, | ☐ |
| (iv) | Beach, sand spit, tombolo | ☐ |

ANSWER EITHER 8A OR 8B

8A. MEASURING WEATHER

The table shows the monthly temperature and rainfall figures for a town in India.

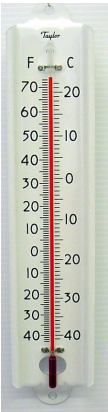
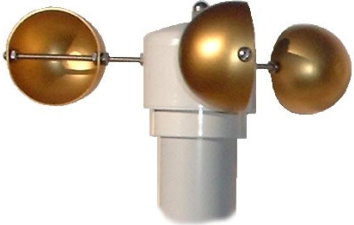
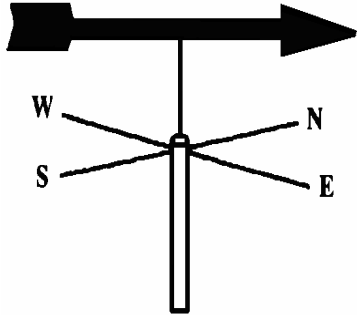
Months	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Rainfall in mm	20	80	125	175	235	300	385	300	250	150	50	20
Temp in °C	24	27	32	36	34	33	32	30	30	29	28	26

- (i) Name the wettest month _____
- (ii) Calculate the annual temperature range _____

OR

8B. WEATHER INSTRUMENTS

The pictures show four weather instruments labelled A-D. Match **each** of the labels A-D with the correct instrument listed in the box. One match has been made for you.

			
A	B	C	D

Weather Instrument	Letter
Wind vane	
Anemometer	B
Thermometer	
Campbell-Stokes Recorder	

ANSWER EITHER 9A OR 9B

9A. MANUFACTURING INDUSTRY

Industries sometimes do not move to new locations, even when changing locational factors suggest that they should do so. This is called: [Tick (✓) the correct box]

- | | | |
|-------|---------------------------|--------------------------|
| (i) | Industrial inertia | ☐ |
| (ii) | Industrial decline | ☐ |
| (iii) | Industrial relocation | ☐ |
| (iv) | Industrial infrastructure | ☐ |

OR

9B. MANUFACTURING INDUSTRY

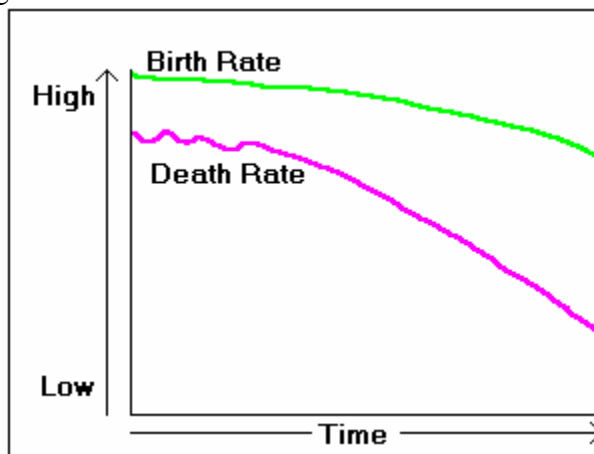
Indicate which **three** of the statements below are true by ticking (✓) the correct box.

1. Heavy industries are usually located in industrial estates at the edges of cities or large towns.
2. Capital is the money required to set up and run a factory.
3. Factories are systems with inputs, processes and outputs.
4. Britain's iron and steel industry migrated from coastal locations to coal field locations.
5. A footloose industry is one that can be situated equally successfully in a wide variety of locations.

- | | | |
|-------|---------|--------------------------|
| (i) | 1, 2, 3 | ☐ |
| (ii) | 2, 3, 4 | ☐ |
| (iii) | 2, 3, 5 | ☐ |
| (iv) | 3, 4, 5 | ☐ |

10. BIRTH RATES AND DEATH RATES

The diagram shows changes over time in a country's birth rate and death rate. The statements below relate to the diagram.

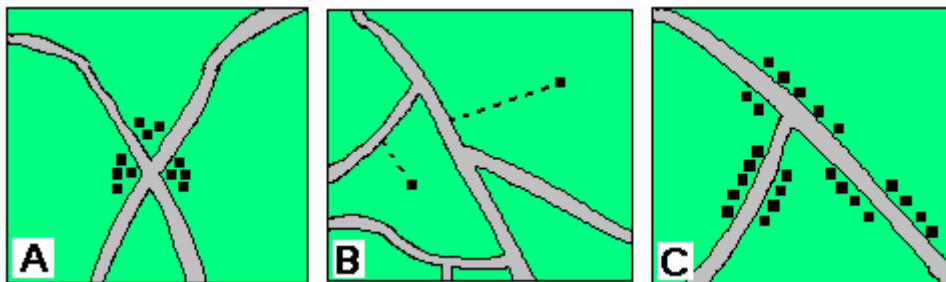


Indicate whether **each** statement is true or false by **circling** the *true* or *false* alternatives.

- (i) The death rate fluctuated (went up and down) at first and then fell quite rapidly. ***True / False***
- (ii) The birth rate fell more rapidly than the death rate. ***True / False***
- (iii) This country has a natural increase in population. ***True / False***

11. SETTLEMENT PATTERNS

Examine the sketch maps labelled A, B and C.



- (i) The type of settlement pattern shown in *sketch map A* is _____
- (ii) The type of settlement pattern shown in *sketch map B* is _____
- (iii) The type of settlement pattern shown in *sketch map C* is _____

12. ASPECTS OF POPULATION

Match **each** of the letters in **Column X** with the number of its pair in **Column Y**. One match has been made for you.

Column X		Column Y		X	Y
A	The number of people per square kilometre	1	Immigration	A	
B	The spread of people in any given area	2	Population density	B	
C	When people come to live in an area	3	Population explosion	C	1
D	Very rapid population growth	4	Population distribution	D	

13. POPULATION CHANGE OVER TIME

The table shows the populations of **four** Irish counties at different times.

	1986	1996	2006
Galway	179,223	190,006	232,334
Mayo	114,985	111,497	124,648
Sligo	57,556	55,848	61,891
Leitrim	27,187	25,564	28,841

- (i) Which county had the largest population in 2006? _____
- (ii) Which county had the smallest population in 1996? _____
- (iii) Which county had the smallest increase in population between 1986 and 2006?

14. WESTERN EUROPE

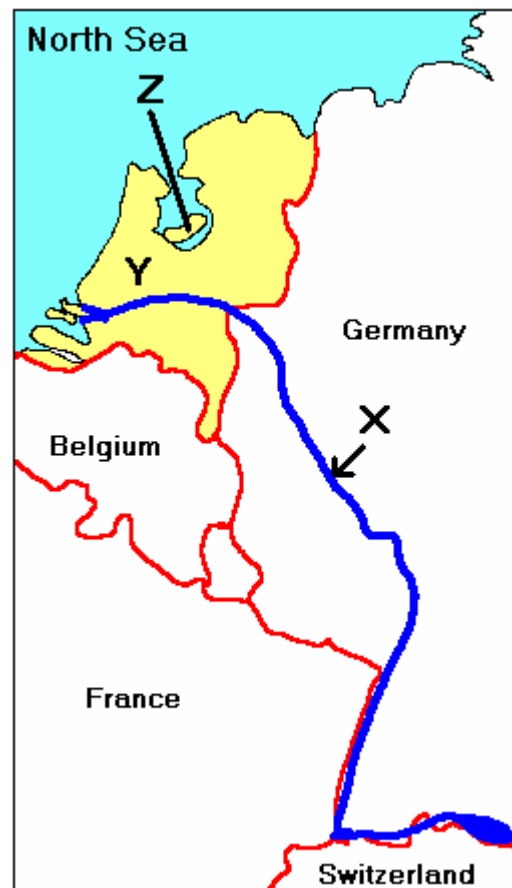
The map on the right shows a part of Western Europe.

Use the map to answer the questions below:

- (i) Name the river labelled 'X' on the map.

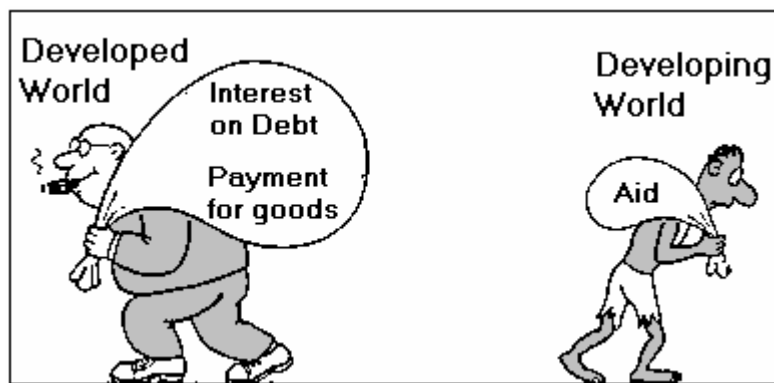
- (ii) Name the country labelled 'Y'.

- (iii) The place labelled 'Z' has been reclaimed from the sea. The name given to land reclaimed from the sea is:



15. DEVELOPING WORLD

Study the cartoon below and answer the questions that follow.



Adapted from original:
www.cartoonstock.com

Which **one** of the following messages is given by the cartoon? Tick (✓) the correct box.

- | | |
|--|--------------------------|
| (i) The Developing World receives more in aid than it pays for goods and interest | ☐ |
| (ii) The Developed World benefits more than the Developing World | ☐ |
| (iii) The Developing World benefits more than the Developed World | ☐ |
| (iv) The Developed World gives more in aid than it receives for goods and interest | ☐ |

16. URBAN ZONES

Match **each** of the urban photographs labelled **A – D** with the correct option in the box. One match has been made for you.



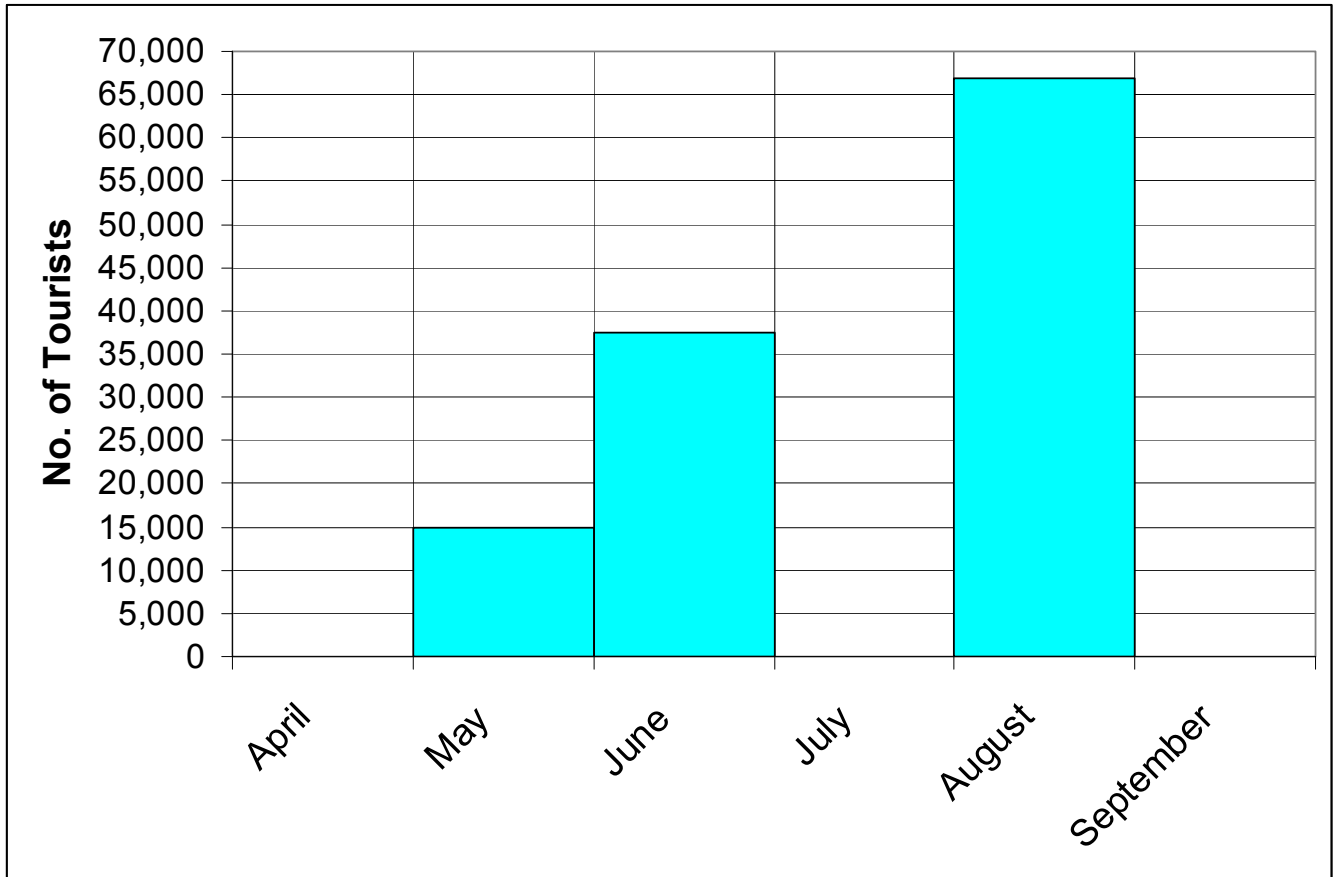
Letter	Urban Area
	CBD
	Industrial estate
C	Urban renewal
	Suburb

17. BAR GRAPH

The table and the bar graph show the approximate numbers of tourists who visited a Spanish holiday resort over six months in 2008.

Use the information in the table to draw the bars for April, July and September.

Month	April	May	June	July	August	September
No. of Tourists	10,000	15,000	37,500	55,000	68,800	25,000



18. ORDNANCE SURVEY MAP

Examine the Ordnance Survey map supplied.

What direction is it from Rathnew (T 28 95) to Wicklow (T 31 93)? _____

19. ORDNANCE SURVEY MAP

Examine the Ordnance Survey map supplied.

In the boxes provided, match **each** of the grid references in **Column X** with the number of its pair in **Column Y**. One pair has been matched for you.

Column X	
A	T 273 914
B	T 327 935
C	T 307 947
D	O 287 014

Column Y	
1	Golf Course
2	Church
3	Castle
4	Railway station

X	Y
A	3
B	
C	
D	

20. AERIAL PHOTOGRAPH

Examine the aerial photograph supplied.

The large all weather playing field can be found in the: (Tick (✓) the correct box).

(i) Right background ☐

(ii) Centre background ☐

(iii) Left middleground ☐

(iv) Centre foreground ☐

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JUNIOR CERTIFICATE EXAMINATION, 2009

GEOGRAPHY - HIGHER LEVEL

FRIDAY, 5 JUNE - AFTERNOON, 2.00 to 4.00

SECTION 2 (90 MARKS)

Answer THREE questions.

SECTION 1 of this paper is on a separate folder, where spaces are provided for your answers.
Please remember to return your completed folder with your answer book.

1. RAINFALL, GLOBAL WARMING AND ACID RAIN

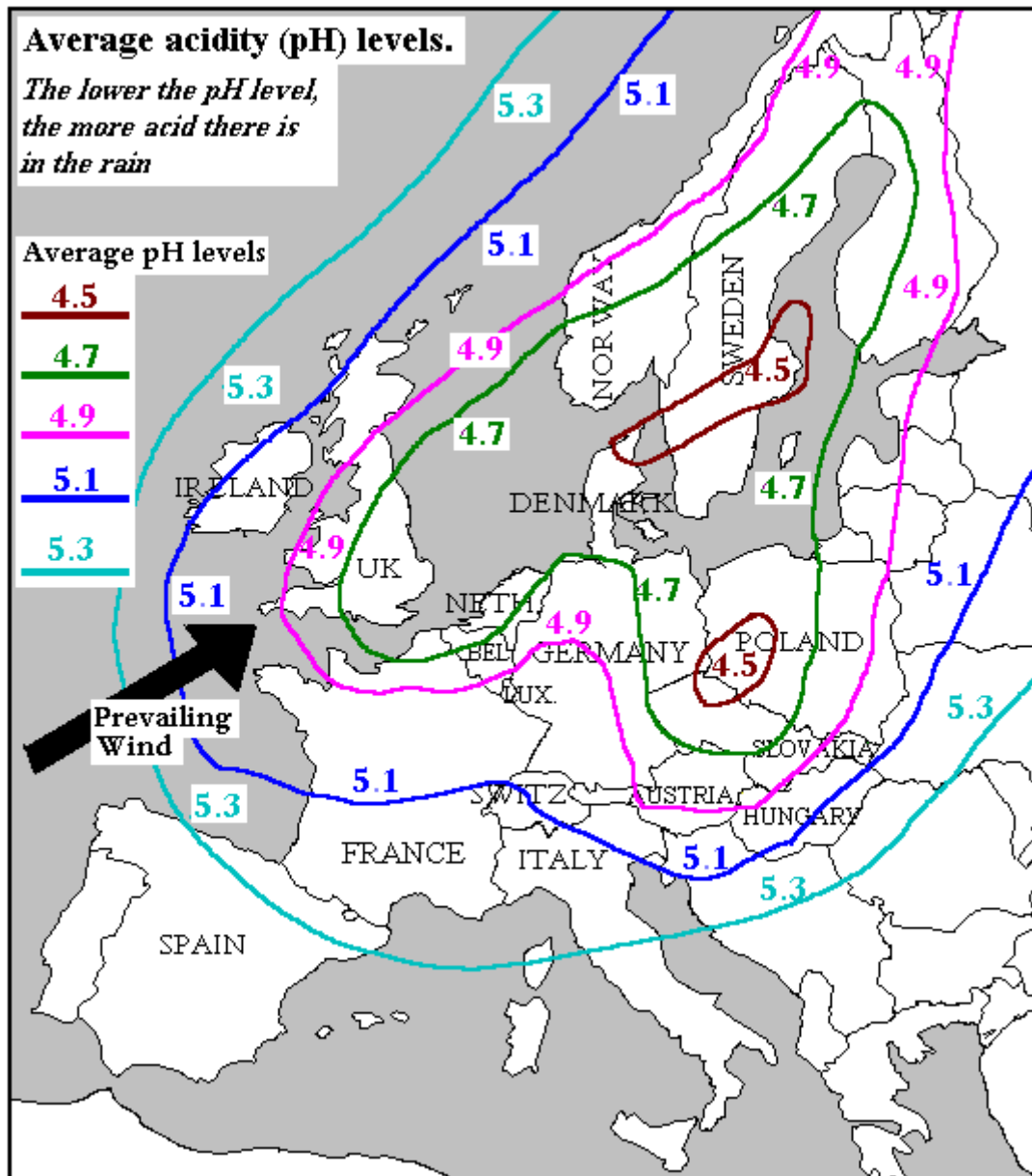
A. Relief Rainfall

Explain with the aid of a diagram how **relief rainfall** occurs.

(10)

B. Acid Rain

The **map below** indicates acid rain levels throughout Europe.



- (i) According to this map which **one** of the following countries is likely to **suffer most** from the effects of acid rain: *Spain, The UK, France, Sweden?*

(2)

- (ii) Describe **two impacts** (effects) of acid rain.

(6)

C. Global Warming

Global warming is already beginning to affect Ireland. A recent scientific report shows that average temperatures in Ireland have increased by 0.7 °C over the past hundred years and that most of this increase has happened since 1980.

All the indications are that mean temperatures will continue to rise.

Meanwhile, winter rainfall is expected to increase by about 15%, while summer rainfall levels are predicted to fall by anything up to 20%.

These climate changes could have terrible effects on agriculture and domestic water supplies. It is expected that the south and east of the country will be worst affected.

(After Irish Examiner 10 June 2008)

(i) Answer the following questions that relate to *the newspaper extract provided*:

(a) By how much have average temperatures increased in Ireland over the past one hundred years?

(b) Which parts of the country are likely to be worst affected by the climate changes mentioned in the extract?

(4)

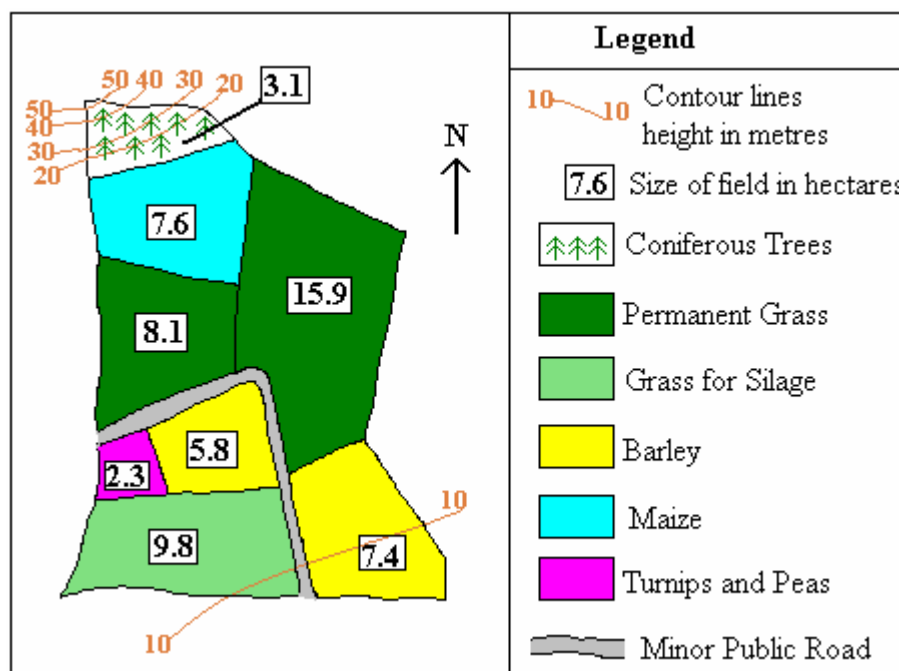
(ii) Describe **two causes** of global warming.

(8)

2. AGRICULTURE AND IRRIGATION

A. An Irish Farm

Examine the sketch map of an Irish farm below and answer the questions which follow:



- What is the size in hectares of the largest field on the farm?
- How many hectares in total are devoted to barley?
- The total area of the farm is 60 hectares. Calculate the percentage of the land that is devoted to permanent grass.
- Why is the growth of coniferous trees an appropriate land use for the 3.1 hectare field at the north of the farm?

(11)

B. Farming as a System

Farming is a system with **inputs, processes and outputs**.

Explain these **three** terms and give an example of **each**.

(9)

C. Irrigation

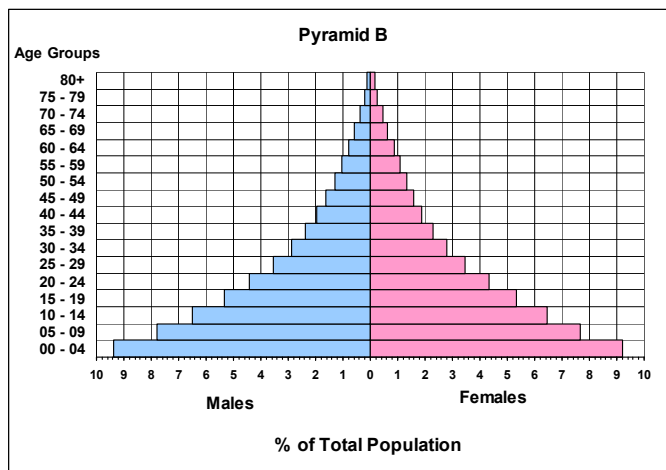
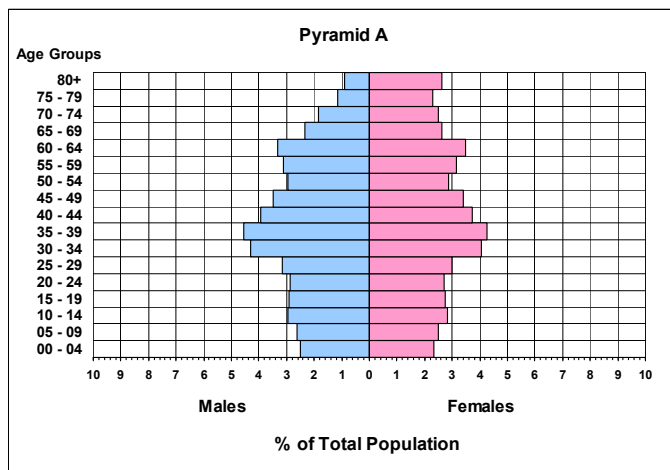
Farms throughout the world sometimes benefit from major irrigation projects.

- What is meant by the term '**irrigation**'?
- Describe any **one** major irrigation project that you have studied.

(10)

3. POPULATION, DEVELOPING WORLD CITIES AND BILATERAL AID

A. Examine the population pyramids below.



One of the pyramids represents a developing country and the other represents a developed country.

- State which pyramid shows the population structure of a **developing country**.
- Describe **two major contrasts** (differences) between the population structures of these two countries. **Refer to both population pyramids for each contrast** that you describe.

(10)

B. High population densities have contributed to serious problems in many cities in the Developing World.

- Name **one** city in the Developing World that you have studied.
- Describe **two major problems** in the named city.

(10)

C. Some countries such as Ireland provide bilateral aid to reduce poverty in the Developing World.

- What is meant by the term '**bilateral aid**'?
- Outline **one argument in favour of** and **one argument against** the use of aid as a means of assisting countries of the Developing World.

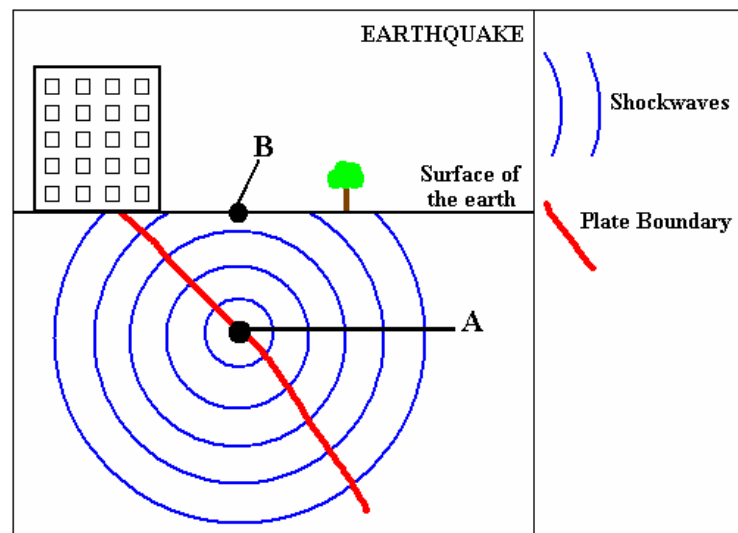
(10)

4. GEOGRAPHICAL MIX

Answer **three** of the following questions A, B, C and D.

A. Earthquakes

- (i) Name **one** place where earthquakes occur.
- (ii) Examine the diagram showing the shockwaves of an earthquake and name the areas labelled A and B.



- (iii) Briefly describe the **cause** of earthquakes.

(10)

B. Tourism

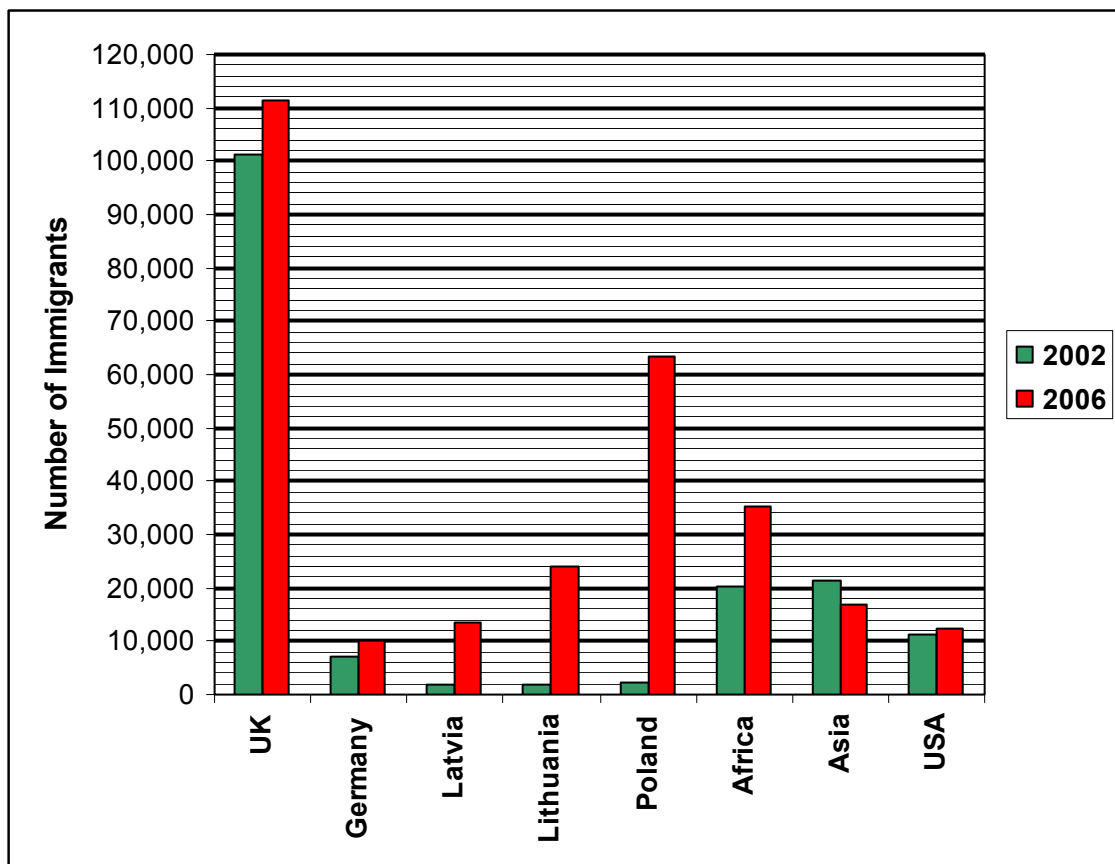


- (i) Name **four** reasons why tourists come to Ireland.
- (ii) Large-scale tourism may have **unwelcome impacts** on some tourist areas. Describe **two** such impacts.

(10)

C. Human Migration

- (i) Examine the bar chart which shows the numbers of immigrants from a selection of regions who lived in Ireland in 2002 and in 2006.



Data: CSO

- (a) From which country did most immigrants come in 2006?
- (b) From which country did immigration to Ireland grow most rapidly between 2002 and 2006?
- (c) Calculate the increase in the numbers of immigrants from Lithuania to Ireland between 2002 and 2006.
- (4)
- (ii) Explain the following terms relating to human migration:
- (a) Pull factors.
- (b) Emigrant.

(6)

D. The aerial photograph

Examine the aerial photograph provided with this examination paper.

- (i) Identify and locate **two** types of **urban** land-use to be seen on the photograph.
- (ii) At what time of year was this photograph taken? Explain **one** reason for your answer.

(10)

5. ORDNANCE SURVEY MAP

Examine the Ordnance Survey map provided.

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

Show and label each of the following on your sketch:

- The entire length of the railway line as shown on the map
- The built up area of Wicklow town
- Boating activities
- An area of coniferous forest.

(10)

B. (i) Estimate in square kilometres the area of the sea shown on the map.

(4)

(ii) Measure in kilometres the length of the railway line from the railway station in Wicklow at T 307 947 to where it leaves the map at T 260 933.

(4)

C. Explain **three** reasons why the town of Wicklow developed at this location.

(12)