

GEOGRAPHY

Short questions

Getting the lie of the land



Jim Carberry, geography teacher at the Institute for over 15 years, advises students to be aware of what is essential

Introduction

The aim of the following articles is to provide a method which, when used in conjunction with your own class notes and textbook, will help you to fulfil your full potential in geography. It is to enable you to obtain the highest number of marks that you can in your higher level geography exam.

All of the articles are written from an examination point of view so it's not intended to replace your course textbook but to supplement it for revision purposes. There are certain key elements that examiners have to identify in your responses to the questions that are set. Therefore it follows that there are certain core areas of the course material that you must know and which must be included in your answers.

The main aim of these articles is to help you to become aware of what is essential and what is supplemental in preparing for your geography examination.

Written paper part 1 Short answer questions

- 80 marks.
- Time: 30 minutes.
- There are 12 short questions asked.
- Each short question is worth eight marks.
- Attempt all 12 questions as the examiner will select your best 10 answers.
- The short questions cover a wide range of geographical skills including the reading and interpreting of:
 - Ordnance survey maps
 - Aerial photographs
 - Graphs and statistics
 - Satellite photographs
 - Weather charts.
- Usually three of the short questions are from core unit 1 (physical environment) and one of the short questions is from core unit 2 (regional geography).

NOTE ON THE SHORT QUESTION SECTION

Don't take the short question section for granted. In the last two years there was more information and greater detail required in the answers. You must revise on a topic by topic basis and practise answering past examination questions.

EXAMPLES FROM LEAVING CERT 2013

Example 1:
European economy
(See image below right)

Example 2:
Map skills – cross section
(See image below)



There are certain core areas of the course material that you must know

At a glance – the exam paper

The total number of marks for geography at Leaving Cert higher level is 500. This is divided into two sections: geographical investigation and the written paper.

GEOGRAPHICAL INVESTIGATION (100 marks)

■ The geographical investigation is part of the core area of the course and it is compulsory.

■ You must complete a geographical investigation from a list of topics issued by the State Examination Commission every year and the report must be presented for assessment.

■ The geographical investigation is worth 100 marks or 20 per cent of the total marks for geography.

WRITTEN PAPER

400 marks

■ The geography paper is two hours and fifty minutes long. Five full questions have to be answered.

■ Each question is worth

80 marks.

Part 1: short questions

■ Answer 10 out of 12 short questions (attempt all 12 – your best 10 will be accepted)

■ Suggested time: 30 minutes.

Part 2: Structured and essay questions:

Section 1

■ You must answer one question from a choice of three in core unit 1.

■ You must answer one question from a choice of three in core unit 2.

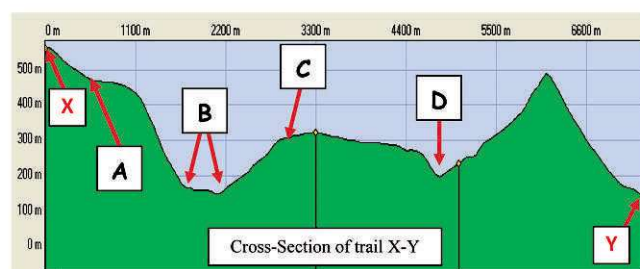
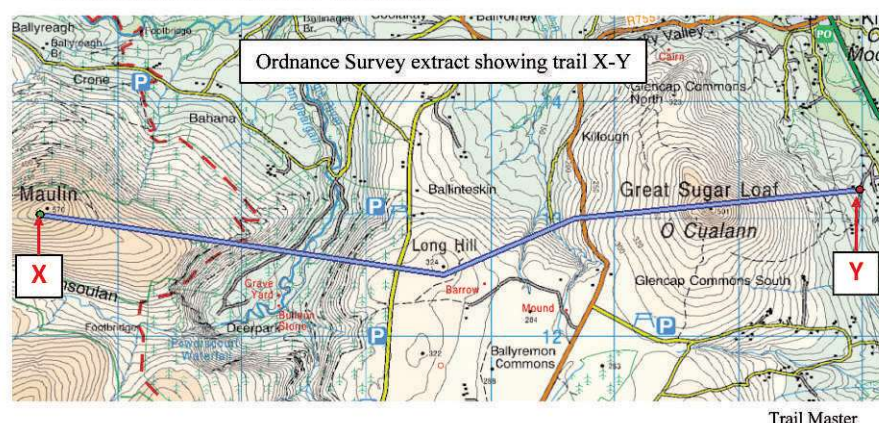
Section 2

■ You must answer one question from a choice of three in your selected elective (there are two electives).

■ You must answer one question from a choice of three in your selected option (there are four options)

■ Suggested time: 35 minutes for each question.

The blue line indicates the location of a trail X-Y on the Ordnance Survey extract below. A cross-section of the trail X-Y is also shown.

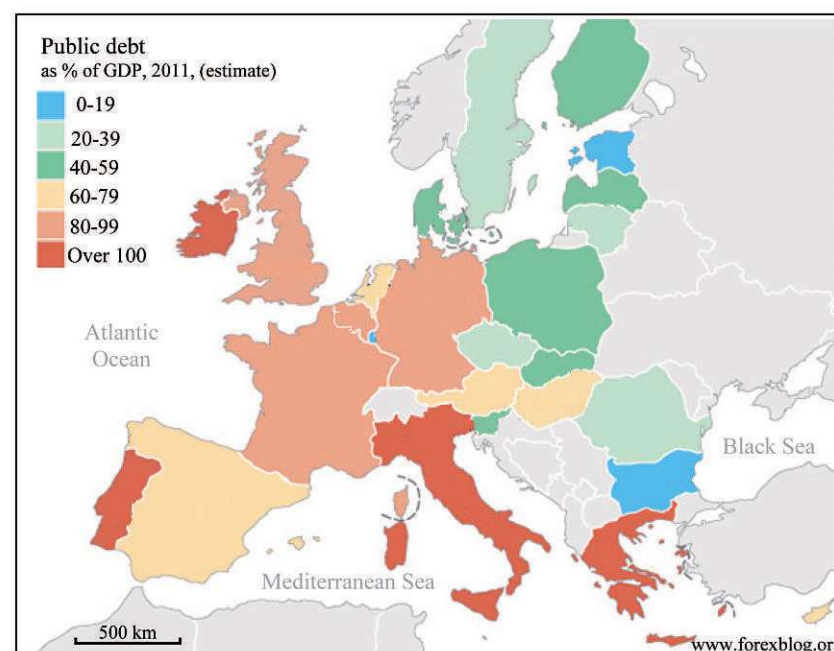


Examine the Ordnance Survey extract and cross-section, and the Ordnance Survey legend accompanying this paper.

Match each of the letters A, B, C and D on the cross-section to its correct description in the table below.

Description	Letter
U-Shaped valley	B
V-Shaped valley	D
Third class road	C
Concave slope	A

9. European Economy



Examine the map of Europe above showing public debt as a percentage of Gross Domestic Product (GDP) for 2011 (estimate) and state whether each of the following statements are true or false by ticking the correct box.

- (i) Four EU member states had a public debt of over 100% of GDP in 2011.
True ☒ False ☐
- (ii) Portugal had a public debt of between 80-99% of GDP in 2011.
True ☐ False ☒
- (iii) Poland and Denmark had the same public debt as a percentage of GDP in 2011.
True ☒ False ☐
- (iv) Spain, Austria and Hungary had a public debt of 60-79% of GDP in 2011.
True ☒ False ☐

A wide waterfall cascading over a rocky ledge into a pool of water, surrounded by dense green forest and hills in the background.

A dramatic view of the Cliffs of Moher, showing steep, layered rock formations meeting the ocean. Waves are crashing against the base of the cliffs, creating white foam. The sky is blue with scattered white clouds. The foreground shows a grassy cliff edge with some small white flowers.

“

If air is trapped between breaking waves and the rock face it is compressed

and forced into cracks in the rocks. This process is called compression and is followed by decompression as the wave retreats. The processes of compression and decompression enlarge the cracks in the rocks.

The load carried by storm waves (boulders, pebbles and sand) is thrown against the notch and wears the rocks away. This process of abrasion enlarges the notch. If the rocks contain minerals which can dissolve in sea water then the process of solution occurs. For example, calcium carbonate in limestone is dissolved by the salty water.

If the wave load remains at the notch then the rate of erosion decreases but the process of attrition, where the load is broken into smaller pieces by the waves, removes the load and allows the waves to enlarge the notch. As the notch is enlarged, the upper part is left unsupported and it is often weakened by weathering processes (carbonation for example). Eventually the upper part of the notch collapses under the influence of gravity as the weight of the unsupported rock is so great.

A steep rock face called a cliff is formed and, as the sea erosional processes continue, the cliff retreats inland and increases in height. As the cliff retreats, a wave-cut platform is formed at its base. This is often a level or near-level stretch of rock at the base of the cliff and is seen at low water mark.

As the cliff retreats and the wave-cut platform becomes wider, the erosional power of the waves decreases. This is because the breaking waves strike the wave-cut platform first and this causes friction with the waves and reduces their energy. Cliffs may be worn down by non-marine processes. Mass movements (slumping, landslides) and weathering (freeze-thaw) continue the wearing down of cliffs when the marine processes have become virtually ineffective.

Topic 2: Landform development in a karst (limestone) region

This topic has been asked in 2007, 2008, 2010 and 2012.

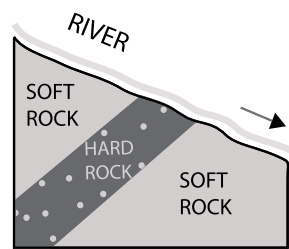
Typical question

Karst landscapes:

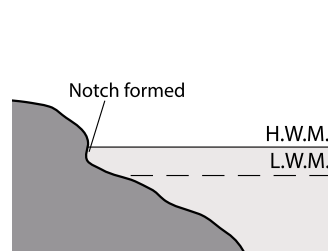
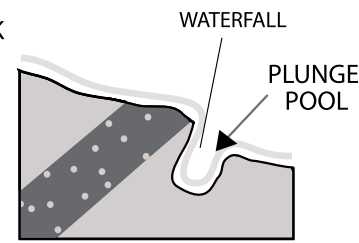
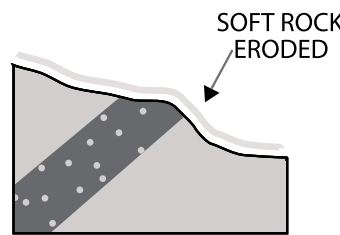
With reference to the Irish landscape, examine the processes which have influenced the development of any landform in a karst region. (30 marks)

Typical marking scheme

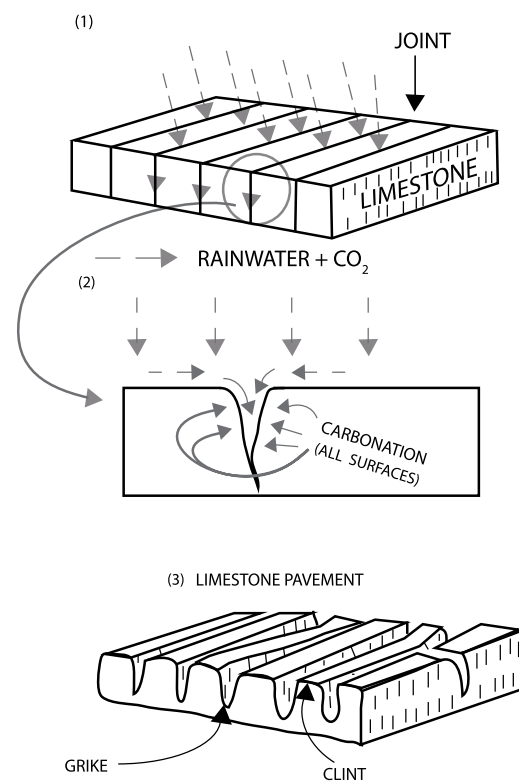
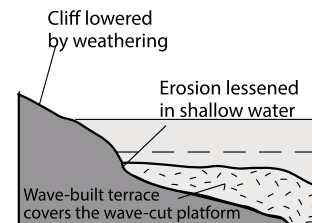
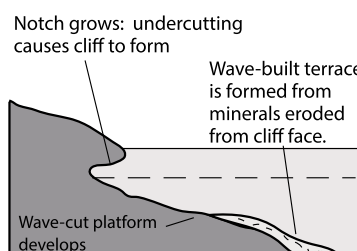
- Named process: two marks.
- Diagram: two marks.
- Explanation: 13 SRPs.
- Credit extra relevant information on labelled diagram for 2 SRPs.
- Diagram without labelling: zero marks.
- Example not tied to Ireland.
- Allow one SRP for an example of a karst region from examination.
- All further processes require examination.
- Two SRPs for description of limestone pavement when that is all that is given.



Waterfall formation



Cliff formation



Sample answer

Landform: Limestone pavement near Black Head in the Burren, Co Clare.
Formation: A limestone pavement is a flat area of exposed limestone. In a limestone pavement, the joints at the surface have been widened to form grikes and the flat-topped blocks of limestone between the grikes are called clints.

The formation of limestone pavements

Above left: formation of a limestone pavement; above right: limestone pavement in the Burren, Co Clare



began during the last ice age when moving glaciers abraded the surface layers of the limestone. The weight and power of the glaciers removed the soil layers that lay over the limestone, thus leaving level layers of limestone.

Much of the soil layer was never replaced, though some boulder clay (glacial deposition) was deposited as the glaciers melted and encouraged the growth of

some vegetation. Most of the limestone was exposed to weathering elements and the general characteristics of the limestone helped the weathering processes. Limestone is a sedimentary rock composed mainly of soluble calcium carbonate which is the cementing agent of limestone.

Limestone is a hard sedimentary rock laid down in thick beds separated by almost horizontal planes, with joints at right angles. It is pervious but not porous, meaning that water can pass along the bedding planes and down the joints but not through the rock itself.

Limestone is chemically weathered by the process of carbonation. Carbonation occurs because rainwater passing through the atmosphere picks up small amounts of carbon dioxide (carbon dioxide makes up 0.04 per cent of the atmosphere). Rainwater and carbon dioxide combine to form a weak carbonic acid. The major mineral in limestone is calcium carbonate and, as the carbonic acid slowly dissolves the calcium carbonate. The calcium carbonate is the cementing mineral and as it dissolves the limestone disintegrates. The soluble calcium bicarbonate is removed in solution.

The process occurs along the vertical joints and bedding planes as they are pervious, unlike the rest of the limestone. The joints are slowly widened to form grikes. The carbonation process is very slow but it can be helped by other processes, especially the process of humification. Humifica-



When water freezes it expands by nine per cent of its volume... it widens the grikes

tion occurs when vegetation which had grown in small particles of soil, died and rotted.

The dead vegetation is called humus and the humus contains carbon dioxide which the plants had absorbed from the atmosphere. So, the rainwater passing through the humus absorbs the carbon dioxide and becomes a humic acid which speeds up the dissolving of the calcium carbonate.

In winter the joints can also be widened by the physical weathering process of freeze-thaw. This process occurs when rainwater lodges in the grike during the day. If the temperature falls to zero, the water will freeze. When water freezes it expands by nine per cent of its volume and as it expands it exerts pressure and widens the grikes.

Human activities can also increase the rate of carbonation. Removing vegetation or burning fossil fuels (coal, oil) increase the amount of carbon dioxide in the atmosphere thus increasing the strength of the carbonic acid.

Improve your Geography grade

Experience great teaching and get exam-focused, expert notes at our **Leaving Cert Easter Intensive Revision Course** from Monday, April 14 to Friday, April 18, 2014.

Book online at ioe.ie, call 01 661 3511 or email info@ioe.ie.



The Institute of Education
79-85 Lower Leeson Street, Dublin 2

BOOK EARLY
& SAVE up to
€100
*before Feb 28





GEOGRAPHY

Human interaction with the rock cycle

The origins of oil and gas

Topic 3:

Human interaction with the rock cycle

This topic has been asked in 2006, 2007, 2009, 2010, 2011 and 2013.

Typical question

Explain, with reference to one human interaction with the rock cycle, that you have studied, how humans benefit economically from this interaction. (30 marks)

Typical marking scheme

- Interaction identified: two marks
- Example: two marks
- Economic benefit identified: two marks
- Discussion: 12 Significant Relevant Points (SRPs)
- Give credit for one SRP for a second example for discussion.
- Give credit for one SRP for a second economic benefit from discussion.
- All other economic benefits must be discussed to gain SRPs.
- Question is not tied to Ireland
- Credit relevant diagrams with extra information.

Sample answer: Oil and natural gas exploration in Ireland

Natural petroleum occurs in the form of oil and natural gas and it consists of a mixture of hydrocarbons plus amounts of sulphur, nitrogen and oxygen. Oil and natural gas are the main energy sources used in the world today.

Oil and natural gas are formed as a result of the partial decomposition of marine organisms (algae) that have been deposited on the sea floor where they have been cut off from oxygen. The algae are decomposed by bacteria to form an organic mud which, when buried and subjected to heat and pressure, produces oil and natural gas. The oil and gas is then squeezed out of the source rock by the pressure of overlying rocks and they move upwards and lie in a suitable reservoir rock. Oil reservoir rocks must be both porous and permeable. To contain the oil and gas, the reservoirs must be sealed by an impermeable cap rock. Impermeable cap rocks are known as traps and they include anticlines and salt domes.

Initial explorations for oil and natural gas are done in known sedimentary rock formations that might have anticline or salt dome traps. Drilling of exploratory wells then confirms the presence and amounts of the oil or gas present.

All known Irish sources of natural gas are offshore and they include the Kinsale gas field (discovered in 1971) and the Corrib gas field (not yet in production).

An Bord Gáis controls distribution of natural gas in Ireland. Distribution by pipeline is to both domestic and commercial customers and by 2014 most of Ireland's major urban areas will be connected. The supply of gas from the Kinsale area has decreased greatly and, to meet the demand, an inter-connecting submarine pipeline to Scotland, which connects Ireland to supplies in the North Sea, has been constructed.

In the near future the Corrib Gas Field will supply most of Ireland's natural gas demands but there has been great concern over both the location of the on-shore production terminal at Bellanaboy, Co Mayo, and the route and depth of the proposed pipeline in North Mayo.

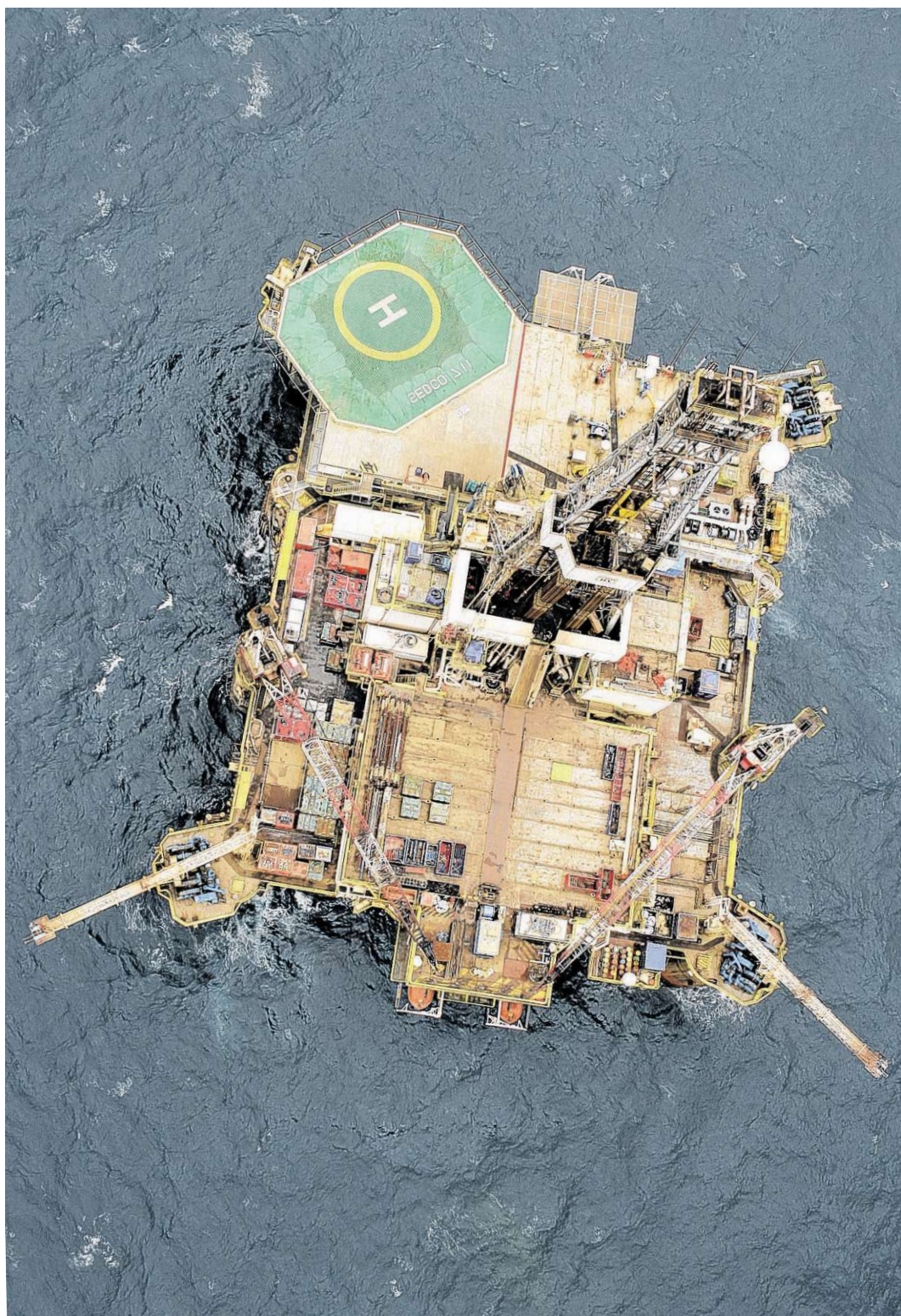
The Corrib gas field will bring economic benefits to Ireland as this country imports nearly 90 per cent of energy requirements, so a local source of energy will reduce Ireland's imports and increase the trade surplus.

Due to economic recession, Ireland's GDP (Gross Domestic Product) has fallen between 2008 and 2012. The finance from natural gas will increase GDP by over three billion euro in the next 20 years.

The impact of natural gas directly on employment is limited. Approximately 1000 jobs were created during construction of the pipeline and the processing plant but these were only temporary jobs. About 200 jobs will be created for pipeline maintenance and at the processing plant, and these jobs should last for 20 years.

The tax benefits to the Irish government will be relatively low as the tax rate on profits had to be set at a low level because there has been a low success rate for finding natural gas off the Irish coast compared to other European countries, eg Norway. (See Table)

There has been an increase in demand for exploration licenses for oil and natural gas in 2013 but as yet no viable, commercial oilfield has been discovered.



Above: Aerial view of the Sedco 711 drilling rig which is being employed in the Corrib gas field; left: exploration to discovery ratio table

	Wells Drilled	Commercial Discoveries	Ratio
Norway	450	50	1:9
Ireland	125	4	1:31

How to get your A1 GEOGRAPHY

- Conor O'Donnell
- UCD
- Business and Law
- On the Elite Ad Astra Academy Scholarship for soccer in UCD



genius who got eight A1s last year and plans to absorb it a marathon three day cramming session just before the exam.

In reality, success in higher level Leaving Cert geography, or any other subject for that matter, means you have to work hard *and* work smart.

By this I don't mean trying to somehow combine the two extremes mentioned above but rather the recognition that getting an A1 requires both a strong and consistent work ethic and the ability to use your time effectively through forward planning and prioritisation.

During my final year studying for the Leaving Cert, I was also training

with UCD every second day. Although this initially seemed like something that might negatively effect my grades, I quickly came to realise these time and work pressures taught me some valuable lessons, which hopefully you too can apply.

From the outset, it is imperative that you pay close attention to what your teachers say in class. Your teachers should be considered as your greatest resource because they possess a wealth of both knowledge and experience and can therefore offer great advice for exams. My teacher was Jim Carberry, and much of my success in geography is attributable to the help that he gave me. Students should not feel reluctant to raise questions and seek advice from their teachers, whose

assistance can make all the difference.

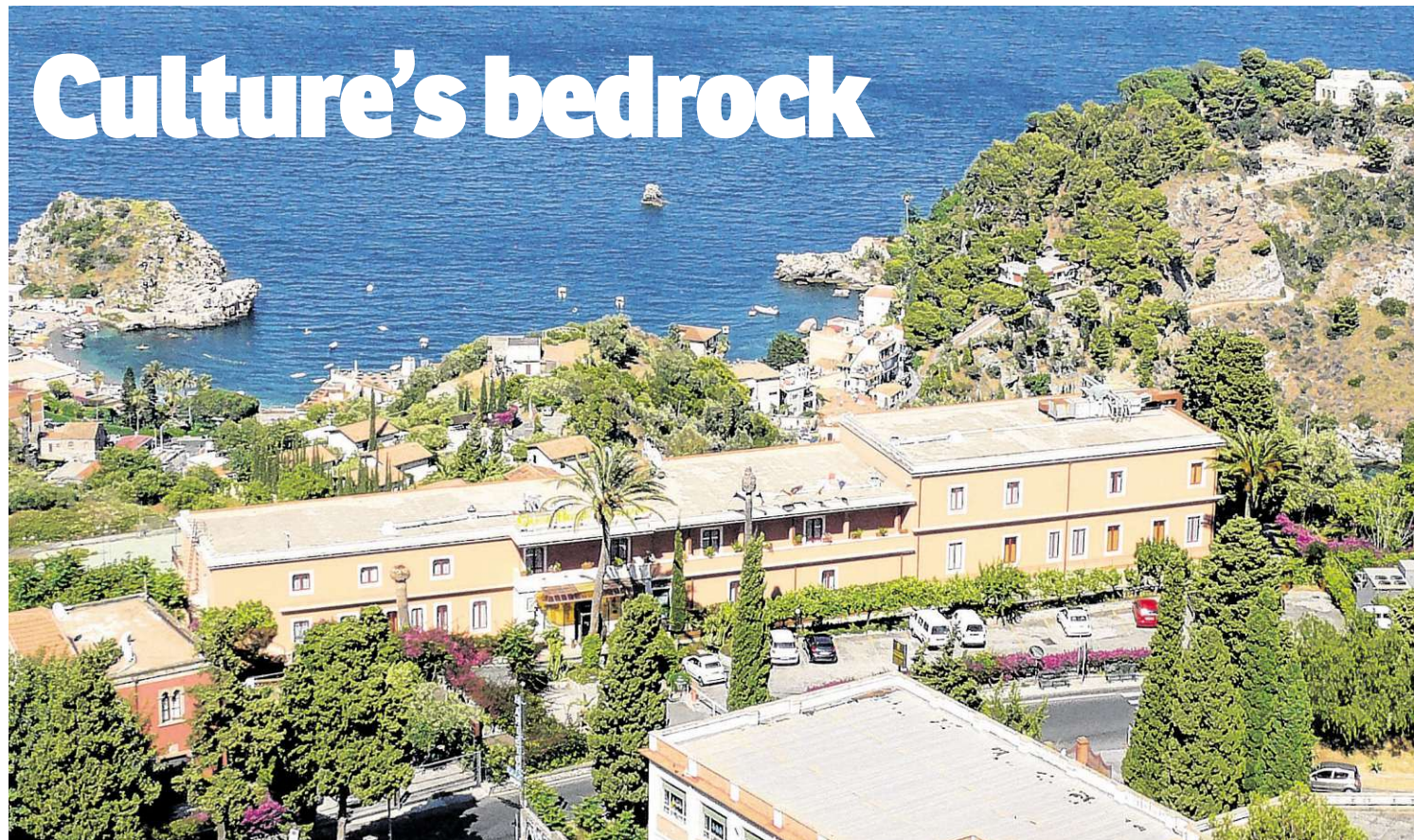
It is important to get a lot of work done before Christmas, as this will give you a strong foundation to build upon. Planning ahead, and keeping your notes organised from day one, will save you so much time in the long term. Cramming will not work in geography because there is too much to learn in such a short period of time. When you study regularly, the information will stick, and when it comes to June, you will find it easier to write down the answers.

Although reading over the notes is essential to your success, it is important not to be blinkered by the information that you have memorised. A simple way to protect against this is to develop a thorough understanding of the exam paper. Familiar-

ise yourself with past exam papers, and identify questions and themes which appear regularly in a recurring pattern. It is important that you read all the questions very carefully and think about what the examiner is asking you. Once again, your teachers are a great asset that can help to clarify this for you.

Lastly, it is important that you take regular breaks. Go for a walk or meet up with friends. Training for UCD meant that I was forced to take regular breaks to get fresh air. Being physically active also helps by increasing your energy levels and serves to break up the monotony of studying, making the task much less arduous. In this way, my training commitments were not detrimental to my exam results but were in fact key to my success.

Regional geography



Culture's bedrock

A look at the meteorological characteristics that distinguish the Mediterranean and Ireland's west

Core unit 2 Regional geography

- There are three questions asked.
- You must answer one question.
- Each question is worth 80 marks.
- Timing: 35 minutes.
- The questions will be divided into three parts:
 - Part A: 20 marks: nine minutes
 - Part B: 30 marks: 13 minutes
 - Part C: 30 marks: 13 minutes

Topic 1: Concept of a region

This topic was asked in 2006, 2007, 2010, 2011, 2012 and 2013. The use of culture in defining region was asked in 2006 and 2010.

Typical question

Examine, with reference to examples that you have studied, how the physical landscape can be used to define regions. (30 marks)

Typical marking scheme

- Named specific locations: two sets of two marks.
- Examination: SRPs.

Sample answer

A region is an area which has a certain characteristic or set of characteristics which separate or divide it from adjoining neighbouring areas. A region is different from all the areas around it.

A climatic region, like the Mediterranean climatic region, is an area that is recognised to have distinct and regular weather patterns over a long period of time. The temperatures, precipitation, wind systems and seasons of the Mediterranean climatic region make it completely different from all its neighbouring regions.

The Mediterranean climate is also known as a warm temperate oceanic cli-

mate and it occurs along the Mediterranean Sea area (eastern Spain, southeast France, southern Italy). Generally the climate is noted for hot, dry summers and warm wet winters, eg Malaga in southern Spain.

While this climatic region has weather differences due to its great width, average maximum temperatures are around 28°C in August and average minimum temperatures are around 12°C in January. This gives an annual range of temperature of 16°C.

Precipitation (usually rainfall) varies also but average amounts are around 470mm per year with the most rainfall (80mm) in January. July is the driest month with less than 2mm of precipitation on average.

The reasons for the climatic conditions include the influence of the sea which has a cooling effect in summer and a warming influence in winter and the latitude (around 40°N) which means that the sun is generally high in the sky giving warm temperatures with low cloud cover.

However, the main influences on the climate are the changes in atmospheric pressure and wind directions between summer and winter. During the summer months the land region is influenced by the Azores high pressure belt and there is lower pressure over the sea.

The prevailing winds are warm north-east trade winds blowing from the land to the sea. They are warm and dry winds causing cloudless skies, no rainfall and warm sunshine. During winter the reverse occurs. Higher pressure develops over the sea and the wind blows from the sea to the land and brings in depressions from the Atlantic Ocean.

The winds blow from the southwest and warm and cold fronts from the depressions lower the temperatures and bring rainfall. This type of rainfall is called frontal but, where there are mountains near the coast, relief rainfall occurs for example in the Apennine of southern Italy.

Variations in rainfall types and amounts can occur. In summer very high temperatures occur and these cause high evaporation rates over the sea. This creates

EXAM TIMES ONLINE

For more Irish
Times/Institute of
Education Exam
Times, see

[irishtimes.com/
studyguide](http://irishtimes.com/studyguide)



convictional rain systems with torrential rainfall and thunderstorms. Sometimes 40mm of rain can fall in just a few hours.

The mountains can also influence rainfall amounts. In southern Italy, rainfall amounts can vary from 900mm per year on the exposed western side of the mountains to as low as 300mm per year on the eastern side because it is in the "rain shadow" of the Apennines.

The Mediterranean region is also noted for its local winds which can bring large changes in temperatures very quickly. The Sirocco, a hot dry wind, blows from the Sahara Desert and can raise temperatures to over 40°C. The Mistral, a cold dry wind, blowing from the Alps down the Rhone valley in France can lower the temperatures by 15°C in a day.

Topic 2: Primary activities and agriculture in an Irish region

This topic was asked in 2007, 2008, 2009 and 2011.

Typical question

Describe and explain any two physical factors that have influenced the development of agriculture in an Irish region that you have studied. (30 marks)

Typical marking scheme

- Factors named: two sets of two marks.
- Discussion: 13 SRPs

Sample answer: Two factors affecting agriculture

■ Factor one: Soils
Despite many physical and economic difficulties agriculture is the major primary economic activity in the western region of Ireland (Galway, Mayo and Roscommon). Many farms are located in the region but farm sizes are often small, income levels are generally below the national average (about 60 per cent of the national average) and only about 15 per cent of the farms can be considered to be economically viable.

Much of the region has steep, rugged upland areas and many of the mountain ranges have been glacially eroded with the soils scraped away. Some areas, for example northeast Mayo, have areas of glacially deposited boulder clay soils so the soils vary greatly in the region.

The soils that remain in the upland areas, especially in Connemara, are composed of poor peat soils. These soils are not suitable for agriculture as they have a mineral hard-pan and are poorly drained resulting in podzol soils.

The soils in the lowland areas are often from glacial deposition (boulder clay) and, as they are heavy clay soils, they absorb and retain water and become waterlogged. They are not suitable for cereal growing. Due to heavy rainfall leaching of minerals in the soil occurs further reducing the soil's fertility and suitability for cereal growing.

The limestone bedrock in parts of East Galway means that the soils are often thin and, due to the joints in the limestone, water seeps down the soils in summer. This lack of water reduces grass growth and makes dairy farming difficult.

The heavy boulder clay soils of northeast Mayo, which receive heavy rainfall, are most suitable for grass growth in this region and so beef cattle and dairying are the main agricultural enterprises in the area.

The soils vary in some parts of east Galway as the shallow brown earth and grey soils are fertile and allow for good grass growth for sheep rearing. The rivers Shannon and Suck often flood in this part of the region and provide fertile alluvial soils for pastoral farming.

■ Factor 2: Climate

Agriculture in the western region is greatly influenced by the climate there. The climate of the region is a cool temperate climate greatly influenced by the sea. Precipitation is high (often around 2,000 mms per year) and occurs in all months of the year.



The main influences on the climate are the changes in atmospheric pressure and wind directions between summer and winter

The year round precipitation in the lowland areas helps the growth of grass and so the emphasis is on the rearing of beef cattle and sheep, especially in east Galway.

Dairy farming is not widespread and is undertaken mainly in northeast Mayo as the milder climate allows for grass growth for most of the year and facilitates the outdoor grazing of the dairy cows. The winter temperatures average over 5°C due to warming influence of the North Atlantic Drift.

Average temperatures range from 5°C in January to 15°C in July and average daily sunshine hours are low – usually about four hours per day on average. The low average temperatures and low sunshine amounts mean that arable farming is restricted as crop ripening takes a long time and there is a low yield per hectare compared to the east and south of Ireland.

The western region is exposed to strong prevailing south-westerly winds and these winds bring frontal depressions from the Atlantic Ocean and result in high amounts of rainfall. The winds and high rainfall restrict the growth of cereals such as wheat and barley as they cannot flourish in these conditions. The low temperatures, high rainfall and strong winds mean that the cereals that do grow are of low quality. Less than one per cent of the national wheat crop is grown in the region.

Due to the difficult physical conditions, small farms and under-investment only a minority of farmers make a moderate income from farming alone. Many farmers in this region are dependent on off-farm income such as tourism and construction to supplement their farming incomes.

GEOGRAPHY

The Mezzogiorno

Climates for growth

Examining the primary activities of southern Italy and the tourism sector in modern India

Topic 3: Economic activities in a European region

This topic was asked in 2006, 2008 and 2012.

Typical question

Examine the factors that influence the development of one economic activity in a European region (not Ireland) that you have studied.

(30 marks)

Typical marking scheme

- Named economic activity: two marks.
- Examination: 14 SRPs available (two marks each).

Sample answer: Mezzogiorno

- Region: Mezzogiorno (southern Italy)
- Economic Activity: Agriculture (primary activity)
- Factor 1: Climate

The Mezzogiorno has a Mediterranean type climate with mild wet winters, and hot, dry sunny summers. With average summer temperatures around 30°C and spring/autumn around 22°C there is a long growing season suitable for a wide range of crops.

With little rainfall in summer most of the crops grown can resist summer drought (olives) or are grown in winter to make use of the rainfall (winter wheat). Winter wheat thrives in the moist mild winter and is harvested in the ideal conditions of hot, sunny weather in early summer in areas such as the Plain of Campania.

Tree crops such as olives are suited to the climate because their roots extend downwards to the water table, giving enough water for a yearly crop. Olive trees are usually widely spaced so as to reduce competition for water during the dry season, particularly in Sicily.

The climate allows for the growth of citrus fruits (oranges) as their thick skins can preserve moisture in the dry season. The highest temperatures and the highest evaporation rates coincide with the time of least rainfall (drought) in summer so fruit must have protection to survive.

Under the *Cassa* scheme, soils of the region that were water-logged during the winter due to heavy rain were drained and those very dry in summer due to drought were irrigated. High value vines, citrus fruits and vegetables are now grown, for example in the Metapontino region along the Gulf of Taranto.

Pastoral farming (rearing of sheep and goats) mainly takes place on the lower slopes of the Apennine Mountains where the climate is cooler due to the higher altitude. In the past, over-grazing often resulted in soil erosion but greater care is now taken and allows grass growth adapted to the climate.

Drought is still a serious problem in the region as it leads to soil erosion when the soil dries up and vegetation doesn't grow. The winds blow the loose soil away. When flash flooding occurs the loose soil is swept downhill.

- Factor 2: Financial help from the Italian

Government and the EU.

For centuries there had been little financial investment in agriculture in the Mezzogiorno. In 1950, the Italian Government set up the *Cassa per il Mezzogiorno* to develop farming in the region. From 1950 to 1984 great changes took place because of the investment.

Massive irrigation schemes were completed (Apulian aqueduct) and provided water during the summer drought. This allowed increased productivity and a wider



High value vines, citrus fruits and vegetables are now grown, for example in the Metapontino region along the Gulf of Taranto

range of crops to be grown (almonds, pears).

Coastal swamps were drained and sprayed with insecticides to kill mosquitoes. Fertilisers were added to increase fertility. The prevention of soil erosion was undertaken with the afforestation of upland areas.

Funds were provided to educate farmers, increase the use of machinery and construct better storage facilities on farms. Agricultural education and the development of co-operatives were undertaken to ensure the viability of commercial farming.

Improved transport (autostrada, electric railways) was developed to give access to large wealthy markets in northern Italy and Germany. Due to the early ripening of



salad crops and citrus fruits, fast access to the markets has improved profits for farmers who can now supply markets when prices are high in early spring.

The development of the Common Agricultural Policy (CAP) of the EU meant that

farmers were given guaranteed markets and guaranteed prices for their products. This greatly encouraged production of cash crops, eg vines, citrus fruits and maize.

Due to increased funding from the EU there was a huge increase in the produc-

Achieving success in the geography paper

Plan your study

- Take control of your study as your success can be assisted by an organised approach. Don't blame anyone else. You should know what is involved. Get the past papers and study the structure of the exam.
- At least 80 per cent of your time as a student will be spent on private study so it is essential for you to acquire the skills which enable you to work effectively.

Establish targets

- Plan reasonable targets which you can achieve in each study session, eg writing out 15 SRPs on your selected topic.

Focus on essentials

- Try to focus on examination topics

that come up every year. Some of these topics are:

- Core unit 1: landform development; plate tectonics; human interaction.
- Core unit 2: economic activities in an Irish region; economic activities in a European region; economic activities in a continental/sub-continental region.
- Economic elective: impact of EU policies on Ireland; multinational companies.

Select key words and phrases

- When you read your notes on a topic, select the key words or phrases which will help you to remember what the topic is about.
- Make a topic summary by placing the core theme or topic title in the

centre then draw lines from the centre and write sub-themes at the end of the lines. Along each line write the key words or phrases linked to the sub-theme

Practise skills and techniques

- The first part of most questions requires the drawing of sketch maps, graphs or reading statistics. These cannot be learned by merely seeing examples or reading about them: it is essential to practise drawing sketch maps, etc.

Prepare a revision programme

- List the topics that are examined.
- Go through the list and identify which topics you feel the need to concentrate on.
- Don't spend valuable time on the

topics you already know and can do. It makes you feel good but does not move you forward.

- Cover all the major topics – don't try to predict what will be examined.
- Don't neglect section 1 (the short questions). Attempt all the past papers in this section and practise the required skills, eg map reading, reading weather maps, etc.
- In recent years the short questions have required more information to obtain full marks.
- Some of the questions in section 1 will come from core unit 1 (physical environment) and core unit 2 (regional geography) so a detailed of these modules is required.

Revision techniques

- Practise answering examination

Tourism in India



tion of certain crops in the Mezzogiorno and other Mediterranean areas, for example Greece. This has led to the seasonal overproduction of grapes, olives and citrus fruits and has led to a fall in prices for the farmers of the region.

Clockwise from above: the Golden Temple at Amritsar, a Mediterranean vineyard, a woman wearing traditional Rajasthan dress

questions from past papers. Time yourself and see if you can write an answer in the time which the examination will allow you.
 ■ Remember that the 30 mark parts of the question should have 15 SRPs (no more).
 ■ Ask your teacher to correct your work or check it yourself using your class notes

Answering questions

A proper analysis of each question asked is essential. You need to think about what you are asked to do. Get a highlighter pen and clearly mark the key instructions. In geographical questions the usual key words are:

- Account for – explain and give reasons.
- Compare – point out similarities and

differences.

- Contrast – look at the main differences.
- Describe – state the obvious.
- Explain – write out the key points and write an explanation.

When answering questions remember to give enough detail

- Proper geographical information/words to develop the point properly. Do not repeat the same information in another point
- Give the right amount of attention to each and every part of a structured question. There is a limit to the number of marks you can gain not only from the whole question, but from each part of it. Give the examiner exactly what is asked for and no more. The number of marks allocated to each part will be shown in brackets on the examination paper.

Topic 4: Economic activities in a continental/ sub-continental region

This topic was asked in 2007, 2009, 2010 and 2013

Typical question

Account for the development of one tertiary activity in any one continental / sub-continental region that you have studied. (30 marks)

Typical marking scheme

- Tertiary activity named: two marks.
- Examination: 14 SRPs available at two marks each.

Sample answer

India's international tourist numbers have increased from 2.5 million in 2001 to over five million in 2012. Tourism has increased employment and foreign earnings. With the rapid development of the Indian economy (expected to be the world's third largest economy after China and US in the next 20 years) there has been a huge increase in local tourist numbers as millions of Indians have had great increases in personal incomes.

There are many varied attractions, physical and cultural in India. The Himalayas attract mountain climbers and hill walkers in summer months and skiers in winter. Despite recent problems of exploitation, the Himalayan region is generally unspoilt and the lower slopes have jungle safari regions.

The Indian coastline is over 5,000 miles long and there are many excellent beaches, especially in Goa and Kerala. The Andaman and Nicobar islands have a tropical landscape and climate and are major attractions for European visitors.

The development of generally unspoilt national parks (Corbett National Park, Nanda Devi National Park in the Himalayas) has attracted eco-tourists to India. The national park developments are major attempts to retain the varied ecosystems of India and also bring employment to isolated regions.

There are large numbers of cultural attractions in India with reminders of civilisations stretching back 5,000 years to the Indus valley civilisations. Fantastic architecture and many temples such as Taj Mahal, the Golden Temple of Amritsar and the Buddhist Murals of Ajanta are world famous and attract millions of tourist.

With hundreds of millions of Hindus living in India, the Ganges, one of India's most sacred rivers, is a major tourist attraction. Spiritually Hindus believe that when they dip in the Ganges all their sins are absolved so millions visit the cities along the river every year.

There are other varied attractions for both Indian and foreign tourists – tea plantations in Assam, Jain Temples, British Colonial heritage such as the Victoria Memorial at Kolkata. Many Indian migrants also return to India for holidays, especially from Britain.

There have been great improvements in the transport infrastructure for tourist development in recent years. The first railway system was built in India in 1853 and India has the fourth most used system in the world. With over 10,000 trains running daily all the major tourist attractions are linked by rail, even into the foothills of the Himalayan Mountains.

The railway system is operated by the state owned company Indian Railways. Over 1.6 million people are employed and it is estimated that 50,000 are employed directly in tourist transport. The provision of high class rail facilities for tourists is one of the profitable aspects of Indian rail.

In the last 20 years there have been great improvements in road transport and now nearly all the major tourist regions are



There are large numbers of cultural attractions in India

linked by 32,000 miles of national roads. Traffic congestion often causes problems in tourist centres such as Mumbai and the Taj Mahal but recent developments have increased tourism in Goa and Kerala

The development of air transport is of vital importance to India's tourism. The major air hubs are at Delhi, Mumbai, Chennai and Kolkata. India has benefited from improvements in cheaper long-distance travel so it is suited to tourists from Europe, who can use Air France and British Airlines, and the Far East where JAL flies to India. With 115 domestic airports all the major tourist attractions are accessible by cheap domestic airports.

Inland waterways are not well-developed for tourism despite the importance of rivers to Indian culture, as seen in the example of the Ganges. There are 12 major and 180 minor ports along India's long coastline so ferry services for tourism are improving especially at Mumbai. There are regular links to the Andaman and Nicobar Islands.

There have been great improvements in accommodation facilities in recent years to meet the growing demands of increased tourist numbers and levels of international standards of facilities. Accommodation varies from modern western-style deluxe hotels to grand old palaces to budget tourist hotels and hostels.

Accommodation prices vary depending of the quality of services and location. Luxury hotels, health spas and heritage hotels are expensive but prices vary with the season and are usually cheaper during the off season from April to September (wet season). Many low budget hotels and hostels have been built to accommodate many young backpacking tourists.



The French Oral exam is worth 25% of your Leaving Cert grade

Learn from and practice with Corinne Gavenda who will be teaching on our Leaving Cert 2014 French Oral Preparation Course in March.

Book online at ioe.ie, call 01 661 3511, or email info@ioe.ie.



The Institute of Education
79-85 Lower Leeson Street, Dublin 2

45 Years of Academic Excellence

Colonial consequences and agricultural advancements



A choice is given in the electives so you can focus on the modules that engage you the most

Electives

There is a choice in this section. There are two electives and you must answer one question only from either:

Patterns and processes in economic activities

or

Patterns and processes in the human environment

Each question is worth 80 marks.

Timing: 35 minutes.

The questions will be divided into three parts:

– Part A: 20 marks 9 minutes

– Part B: 30 marks 13 minutes

– Part C: 30 marks 13 minutes

Topics from patterns and processes in economic activities are explored here.

The Gateway of India: the monument was built in Mumbai during the British Raj; below: Sam O'Connor at the Institute of Education Photograph: Brendan Duffy

Topic 1: The impact of colonialism and globalisation

This topic has been asked in 2006, 2008, 2009, 2010, 2011, 2012 and 2013.

Typical question

Examine the impact of colonialism on the economy of a developing country that you have studied. (30 marks)

Typical marking scheme

- Impact identified: two marks.
- Named developing country: two marks.
- Examination: 13 SRPs available.
- Discussion without reference to colonialism will get a maximum of two SRPs.
- Discussion without reference to named

developing country will get a maximum of two SRPs.

Credit for two further impacts identified as SRPs from examination.

Sample answer

Colonialism had a major influence in changing the patterns of world trade and world economic development. Colonialism meant that a dominant-dependent relationship developed between the conquerors and their colonies and this was clearly seen in the relationship between Britain (colonial power) and India (the colony) between 1750 and 1947.

The function of the colony was to serve the economy of the ruling country. India had to export cheap primary products to Britain. The colonies supplied cheap food products (tea, coffee, sugar) and raw materials (cotton, timber). Around 90 per cent of India's exports went to Britain.

taxed the local producers out of the markets.

Manufacturing industry in the colony was deliberately run down to enable products from the colonial power to dominate the markets. India's share of world manufacturing output declined from 18 per cent in 1830 to one per cent in 1913.

Colonialism meant that India's trading patterns were completely changed. Most exports went to Britain or British colonies and Britain controlled the imports into India, especially of manufactured goods. Colonialism also helped to further divide India into a society with a rich powerful land owning group and a poor, landless group of workers. Taxes on the large Indian population brought great wealth to Britain. India became the major source of taxation helping Britain to dominate world trade.

After gaining its political independence in 1947, India had to build an economy from a poor economic base that it had inherited from colonialism. India tried to build up its home industries by a protection-



The colonies became markets for the manufactured goods of the ruling country and India became Britain's largest market

ist policy which restricted imports by setting tariffs (import taxes) which raised the price of imported goods, quotas (control on the amount of imports imported) to reduce competition and embargoes (complete bans on some imported products).

From 1947 to 1990, India needed the policy of protection as it was receiving low prices for its primary products on the world markets and was still dependent on Britain. It was partially successful due to its huge home market and large amounts of raw materials. So food processing, textiles and engineering increased.

However, through the partial failure of their "Five Year Economic Plans" the government changed its strategies. Borrowing increased but the Indian government did not "over-borrow" and there is no debt crisis. India borrowed about 84 billion dollars but this is only 82 dollars per person.

The era of globalisation brought many multinational corporations (MNCs) to India from 1990 due to low labour costs, an educated workforce, a large local market (1.1 billion people) and low tax rates. Many high tech products are now produced in India's "silicon valley" in Bangalore. There has been a huge increase in exports and India is now classified as a Newly Industrialised Country (NIC).

Increased production in manufacturing industry (eg textiles and clothing) has meant that India no longer depends on the exports of cheap, primary products. India now has the third largest economic output in Asia, after Japan and China. Economic growth has averaged six per cent in the past two years.

The colonies became markets for the manufactured goods of the ruling country and India became Britain's largest market. Control of the increasing trade patterns increased the wealth and political importance of the colonial power – this was the policy of mercantilism and over 50 per cent of British exports went to India.

Little extra employment was created in the colonies where the most fertile land was used for the growth of export crops. Large plantations based on large-scale operations saw land removed from growing food for local consumption and used for commercial crops for export.

In the colonies, transport networks were established to ensure efficient movement of primary products to ports for export, eg rail connections to the ports of Mumbai, Madras and Kolkata in India. While these three key ports were developed, most of the rest of India's transport network was left underdeveloped.

Up to the 1800s, India had many important craft manufacturing industries, eg the textile industry, and had the advantages of local raw materials (cotton), cheap labour and a huge home market. Deliberate policy

EXAM TIMES ONLINE

For more Irish Times/Institute of Education Exam Times, see

irishtimes.com/studyguide



Improving your grade in geography

Plan your study.

Prepare a detailed revision programme.

When you practise answering questions and when you are sitting the examination there are two key words to concentrate on: reading and time.

So plan your time for each question and read the questions carefully and give enough detail.

Apply your knowledge by giving relevant answers, state precise examples and make clear decisions in questions that contain key words like "discuss" and "account for".

Topic 2: The impact of one EU policy on Ireland

This topic has been asked every year between 2006 and 2013.

Typical question

Examine how any one major policy of the European Union has influenced Ireland's economic development. (30 marks)

Typical marking scheme

- Major European policy named: two marks.
- Influence on Ireland's economic development: two marks.
- Examination: 13 SRPs available.
- Maximum of two SRPs will be given for discussion without link to Irish economy.
- Amalgamate all relevant discussion points.
- If more than one policy discussed mark both and credit the best
- All further influences require discussion.

Sample answer

Since 1973 the European Union's Common Agricultural Policy (CAP) has been a major influencing factor on Irish agriculture. The CAP was set up in 1962 to provide a decent standard of living for farmers and to increase food production and quality. There were two major policy decisions taken to ensure that these aims were achieved. The first major policy was to increase tariffs (import taxes) on imported agricultural products to protect EU farmers from cheaper imports and to subsidise exports to other parts of the world.

The second policy ensured that living standards improved by setting up a guarantee fund to maintain high prices for farm products and a guidance fund to give grants for improved machinery and farm buildings and to encourage larger farm sizes.

Irish farmers recognised the importance of the CAP when Ireland joined the EU in 1973 as agriculture was a vital sector of the Irish economy providing over 40 per cent of the value of Irish exports and nearly 25 per cent of total employment.

The CAP had a huge impact on Irish agriculture. From 1973 there was a massive increase in farm output as the guarantees on prices and markets became effective. Huge increases in the amount of cereals produced and in milk and meat production occurred.

The guaranteed market and prices have helped to greatly increase the value of Irish food exports and have helped to increase the size of Ireland's surplus balance of trade. Food exports have risen from a half a billion euro to around €10 billion.

Improved efficiency, higher quality products, higher prices and improved markets have increased farm incomes. Average farm incomes have trebled in the last 30 years. But incomes of the larger and more efficient farmers have risen at a much faster rate and many farms are too small to allow their owners to earn a reasonable income (many farmers have incomes of only 60 per cent of the average industrial wage).

In the Border, Midland and Western region many farmers would not survive without income support from the CAP. In many cases 80 per cent of farmer's incomes come from direct subsidies from the CAP showing that without it they would not be competitive.

Irish farming receives €1.25 billion per year in direct payments under the CAP and the economic benefits of this income was expected to slow down the decline in agricultural production. However, the percentage of the Irish workforce employed in agriculture has declined from 25 per cent in 1975 to less than 8 per cent in 2012.

With improved machinery, better farm buildings and CAP reforms to improve productivity, the average size of farms has increased from 17 hectares in 1975 to nearly 35 hectares in 2012. Another emphasis of the CAP has been to improve the quality of products so farms have become more specialised and there has been a reduction in mixed farming.

Many people see the CAP as being too expensive. In 2007, the CAP represented 37.4 per cent of the total EU budget of €114 billion. Reforms of the CAP in 1992 and 2004 reduced the overall cost of the policy and, to encourage farmers to produce farm products to meet market demands and improve the quality of products, a single direct payment of average farm income is given to farmers.

Other changes to income support are being undertaken in the EU budget for 2014-2020. Overall EU expenditure on the single farm payment is being reduced and rebalanced. The EU commission wants to make a radical change in which the single farm payment is distributed within member states including Ireland. Instead of the current system where payment is based on past production, the commission proposes that the payments will be made on a per hectare basis. Many farming groups believe that this will favour inactive farmers and punish productive farmers.

Changes in the CAP have ended sugar beet production in Ireland. In the world trade negotiations in Hong Kong in 2005, the EU agreed that it would eliminate price supports and subsidies for sugar beet production. This cut the price of Irish sugar beet by 36 per cent and made the growth of sugar beet uneconomical in Ireland as imported sugar was much cheaper. Irish sugar beet production virtually ended in 2006 and over 3,700 farmers stopped growing the crop.



Patterns and processes in the human environment

Topic: Urbanisation

This topic has been asked in 2006, 2007, 2009, 2010, 2011 and 2012.

Typical question

"Authorities in cities in the developing world have attempted to overcome the problem of rapid urban growth." Examine the above statement with reference to an example(s) you have studied. (30 marks)

Typical marking scheme

- Example named: two marks.
- Examination: 14 SRPs.
- If no reference to named developing world city / cities do not award example marks.
- Credit second named example as SRP from examination.
- Credit two SRPs for description of problems of urban growth when it is all that is given.

Sample answer

In Brazil the population of the Sao Paulo metropolitan area has grown from 8 million people to over 17 million between 1970 and 2010. The Sao Paulo metropolitan area consists of 39 urban areas which have joined together and now form a huge urban area.

This area is now nearly 90kms wide and over 40kms long. This rapid expansion in both population and size has brought many problems. The major problems are lack of formal housing and the growth of overcrowded *favelas*, poor basic living conditions (lack of water, poor sewerage), traffic congestion and pollution.

In the early 1900s, Sao Paulo developed around the Triangulo, the Central Business District (CBD) with housing development extending along radial highways with residential areas becoming progressively poorer with distance from the centre. The extension (sprawl) of the city

occurred between 1915 and 1940 due to high rates of natural increase and immigration.

Industrialisation had a huge impact on the urban structure. The first industrial estates were located on the southern bank of the River Tiete but from the 1930s new industrial estates developed in the southeast of the city. Until the late 1960s, the city largely grew unplanned. Huge high rise apartments were constructed near the CBD and *favelas* developed along the River Tiete as the demand for housing grew rapidly and exceeded supply.

It was not until 1968 that the first meaningful attempts to develop a proper planning strategy were made and in 1974 a coordinated administration and planning system was established. The historic city centre had a major problem with traffic congestion. Over 12,000 vehicles per hour saturated the area. Proper planning has greatly reduced the problem as the traffic now runs underground in 570 metre-long tunnels that connect the northern and southern sections of the city. Much of the city is now pedestrianised.

To the southwest of the centre, the three kilometre long Avenida Paulista has been developed as the modern commercial and financial centre. Skyscrapers have been built as there was a huge increase in the price of land when banks and multinational corporations competed for space in the area.

Expensive apartment buildings have recently been built a few kilometres southwest of the central area. In this area, known as the *Jardins*, the major shopping streets are also located.

As Sao Paulo's economy developed, there was a great demand from large corporations for modern and easily

accessible headquarters. So the planning authority developed a large area in the southwest of the city with the World Trade Centre complex as the focal point of the development. The huge increases in both population and wealth created a demand for service industries and the planning authority developed 11 major shopping malls at various locations near the CBD. They are separated in distance by 3-4kms to reduce traffic congestion.

Traffic is a major problem with over six million people owning cars. Traffic also causes over 80 per cent of Sao Paulo's air pollution so, to reduce the use of private cars, the local government have built new ring-roads, new metro lines and improved urban rail links.

Economic development, rising population and increased wealth have led to increased consumption of goods that in turn has led to a massive increase in the amount of rubbish that the city needs to deal with. With only two landfill sites, the authorities had a major problem of waste disposal so two enormous waste disposal incinerators were built, each burning 7,500 tonnes of waste each day.

To combat the very poor housing with about 20 per cent of the population living in *favelas* (poor quality housing) and *corticós* (overcrowded and decaying buildings) the authorities introduced a slum clearance and redevelopment programme called the Cingapura. The aims were to provide new housing, water and electricity supplies, etc in new high-rise buildings. The fundamental aim of the project was to keep families residing in the same geographic area instead of relocating to new ones. Many people disliked the high-rise buildings and so now, authorities are attempting to improve existing homes.