### Marking Scheme – Geography – Junior Certificate Higher Level 2003

#### **Section 1 Folder Question**

20 Questions (a) 3 marks each = 60 marks

1. 3 @ 1mark

Upper/Young = 1mk Correct location = 1mk Increased = 1mk.

**2.** 3 @ 1mark

High between 1024 isobar = 1mk 968 = 1 mk Cold = 1mk

<b>3</b> A.	3 @ 1mark	Or	<b>3B</b> .			_
	$\bigcirc$			А	3	ļ
	Mid-Atlantic Ridge = 1 mk.	[		В	1	Į
	The Pacific Ring of Fire $= 1$ mk.	4  correct = 3  marks		С	4	
	The Rockies $= 1$ mk.	2-3 correct = 2 mar	ks	D	2	
		1  correct = 1  mk		Е	5	

**4.** 1 @ 3marks

1,3,5 = 3 mks.

5. 1 @ 3 marks

A town where people live but work in another town. = 3mks

6.A	3 @ 1mk	<u>OR</u>	6.B	3 @ 1 mark
	(i) $4.7^{0}C = 1mk$ (ii) $37.2 mm = 1 mk$ (iii) Day $7 = 1mk$			<ul> <li>(i) Hot Desert = 1mk</li> <li>(ii) Equatorial = 1mk</li> <li>(iii) Boreal = 1mk</li> </ul>

7. 3 @ 1 mark

Greater = 1 mk Greater = 1 mk One reason = 1mk. <u>Suggested answer</u> Outward migration/ cheaper housing/ cheaper land 8. 3 @ 1 mark

High Fluctuating = 1 mk Death Rate = 1 mk Developed Countries = 1 mk.

**9.** 1 @ 3 marks

Needle-like leaves = 3 mks

**10.** 1 correct = 2 marks / 2correct = 3 marks

Diagram on left = Humification = 2mks Diagram on right = Leaching = 1 mk.

11A.	1 @ 3 mark	Or	11B	1 @ 3 marks
	Box (c) = $3$ marks		Box (c) = $3$ marks	

12 1 @ 3marks

Convectional Rainfall = 3 mks.

**13.** 3 @ 1mark

Less than  $15^{0}C = 1 \text{ mk}$ Lower = 1 mk Decrease = 1 mk.

14. 3 @ 1 mk.

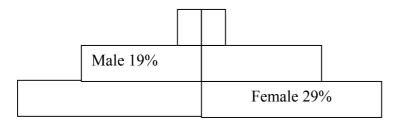
Any 3 from Solar / Wave / Tidal / Hydro

**15.** 2 @ 2marks + 1mk.

lerrace		(iii)Two Storey	
(ii)Bungalows	Other	detached	Two Storey Semi-detached

## 16. 3 @ 1mark

Two completions @ 1mark. Developing = 1 mk.



**17.** 1 @ 3 mark.

County Dublin is the most urbanised = 3 mks.

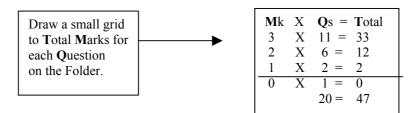
**18.** 3 @ 1marks

Land use	Grid Square
Coniferous forest	S6674
Sewage Treatment Plant	S7174
Factory	S7278

**19.** 1 @ 3mark

N80 = 3 mks.

**20.** 1 @ 3marks 3.6 kms - 3.9 kms = 3 mks.



Please enter the folder total mark on the top right corner of the first page of the candidate's script. When entering the mark on the front grid enter it as F = 47 as per example above.

## Marking Scheme – Geography – Junior Certificate Higher Level 2003 <u>Section 2</u>

## **Question 1. Resources and Economic Activity**

### A. Water

(i) With the aid of the diagram of the **Water Cycle** explain how water is a renewable resource. (6)

**Three explanations** (*a*) 2 marks each. (St 1mk + Dev 1mk) (One Development must refer to the completion of the cycle)

#### Suggested answers.

The sun evaporates seawater, which rises and condenses into cloud. Clouds become cooler releasing moisture as precipitation. Some precipitation returns to the sea in the form of rivers.

# (ii) "Water is a scarce resource in some parts of the world"

With reference to an Irrigation Scheme you have studied:

- *Name the scheme.*
- *Outline its operation.*
- Discuss **two** benefits of the scheme to the local population.

Named Scheme = 2mks

(10)

### Suggested answer.

Aswan Dam, Central California Valley, etc.

**Outline of Scheme** 1 @ 4 marks(St2mk + Dev 2Mks) Or (St 2mk + St 2mk)

#### Suggested answer.

The Aswan Dam was built across the Nile Gorge to control flooding on the Nile and provide HEP.

## **Question 1.(continued)**

**Two Benefits** (a) 2 marks each (St 1mk + Dev 1mk)

### Suggested Answer.

It supplies electricity – Prevents flooding – irrigation for crops all year – provides lake for tourism.

### B. Peat

(i) *"The use of technology has speeded up the rate of exploitation of the Irish peat lands."* 

The diagram below shows the stages in the exploitation of a bog. Use this diagram to explain **three** ways technology has been used to exploit the bogs. (8)

#### Three explanations

Two @ 3mks(St 2mk + Dev1mk) One @ 2mks(St 1mk + Dev 1mk)

#### Suggested Answers.

The bog is drained by digging deep drains with machines called 'Ditchers'. The bog is leveled with machines called 'Graders' Rail tracks are laid for transport. Peat is harvested with special 'Milling' machines. Briquettes and Peat moss are marketed through various media e.g. TV, radio, print etc.

### (ii) *"In the future, Bord na Mona may use the Cutaway Bogs for wind farms."*

Suggest three advantages the Cutaway Bogs have for the location of wind farms.

Three statements @ 2 marks each

#### Suggested answers.

Flat land - easy access Exposed landscape – no shelter from wind. Infrastructure – Narrow gauge railway

## **Question 1. (continued)**

## <u>Or</u>

Suggest *three* other ways in which the cutaway bogs might be used in the future.

(6)

Three ways @ 2 marks each (St 1mk + Dev 1mk)

<u>Suggested answers.</u> Grassland – for cattle, sheep Forestry – Construction and furniture Wildlife - sanctuary.

## Question 2. **Population**

### A. Examine the Population Pyramids of Ireland 2000 and Mali 2000

*Identify the differences in the structures of these two populations. In your answer refer to:* 

- Birth Rates
- Death Rates
- *Life Expectancy*

(12)

**Three differences identified** @ 4 marks each. Statement of difference under each heading = 2marks Development of each statement = 2marks. Information from the Pyramids must be used to get the development marks.

#### Suggested answer.

Birth rates in Mali are higher than Ireland The base is wider in Mali. Death Rate are higher in Mali – the pyramid narrows more quickly. Life expectancy is greater in Ireland – 85 + in Ireland.

### **B.** Examine the Population Pyramids for Ireland 2000 and Ireland 2050.

Describe **two** contrasts between the actual population figures for Ireland in 2000 and the estimated figures for 2050. (10)

**Two contrasts** @ 5 marks each. (St 2mks + Dev 2mks + Dev 1mk) Information from the Pyramids must be used to get the development marks.

#### Suggested answer.

Birth rate is lower in 2050 - 280,000 in 2000, 220,000 in 2050 Much greater elderly population in 2050 – e.g. 180,000 in 2050, 50,000 in 2000

## **Question 2. (continued)**

## C. Estimated population projections for the future.

How do estimated figures such as the ones shown for Ireland in 2050 help in planning for:

(8)

- Health Services
- Education services.

**One explanation** under each heading @ 4 marks. (St 2mks + Dev 2mks)

### Suggested answer.

Many older people therefore more Hospital services needed. Number of young lower therefore less demand for school buildings and extra teachers

## Question 3. GEOGRAPHICAL MIX

Answer **THREE** of the following **A**, **B**, **C**, **D** 

Mark all if answered by candidates, but credit marks for the best **three** only. Square bracket the surplus question

## A. Greenhouse Effect *I* Climatic Change.

(i) Describe the causes of the increase in global temperatures. You may use a diagram to help in the explanation.
 (4)
 **Two causes** @2 marks each (St 1mk + Dev 1mk)

#### Suggested answer.

Burning of fossil fuels produces carbon dioxide gases producing greenhouse effect. Increase in animal farming means more methane gas Deforestation means less carbon dioxide being absorbed.

*(ii) Explain how* **TWO** *of the following might help to ease the problem of global warming:* 

- Energy Conservation.
- Use of Renewable energy sources.
- Increase the area planted with trees.

(6)

Two explanations @ 3 marks each. (St 2mks + Dev 1mk)

#### Suggested answer.

More people using Public transport cutting down on gas emissions. Tidal, wave, solar, wind or HEP do not emit gases. Trees absorb carbon dioxide and produce oxygen.

## **Question 3. (continued)**

## **B.** World Inequalities.

*Examine the chart comparing* **Ireland** *and* **Nigeria** *and answer the questions that follow:* (6)

(i) Select from the chart **three** statistics showing that Nigeria is less developed than Ireland. (6)

Three Statistics @ 2marks each (St 1mk + Stat 1mk)

### Suggested answer.

Nigeria has a smaller GDP - \$853 compared to \$25,918 Ireland has a higher life expectancy 76.4 years as compared to 51.5 years.

(ii) Outline two types of aid Ireland could provide to Nigeria to help it develop.
 In your answer name the type of aid and discuss the likely effects of each. (4)

Two types of aid @ 2 marks.(St 1mk + Dev 1mk)

### Suggested answer.

Bilateral aid could be used to improve education or health services. NGO aid like that supplied by Concern could be used to improve farm production.

## **Question 3. (continued)**

## C. Urban Geography.

Examine the diagram of the cross-section of a city and answer the questions that follow:
(i) With reference to the diagram, state which part of the city has the highest land values.
Explain two reasons why land values are high in that part of the city. (4)
Statement = 2 mark
Two explanations @ 1 mark each.

### Suggested answer.

'A' or CDB has the highest land value Land here is used intensively. It is used mostly by businesses that can afford high rents.

(ii) Use the photograph of Carlow town to answer this part of the question.
 "Parts of an urban area are given over to particular land uses."
 With reference to the photograph of Carlow town, locate and describe two land-uses in the

town. (6)

(Note: As it is not a vertical photograph, refer to places as 'background', 'right foreground' etc.)

**Two land uses** @ 3 marks each. (St 1mk + Dev 1mk + Loc 1mk)

#### Suggested answer.

There is a residential area where people live in the left background. There is a car park for shoppers in the right middle distance. There is a recreational area where people might walk in the right background.

## **Question 3. (continued)**

## D. Soil

(i) Explain **two** ways soil is important to humans. (4)

### Two explanations @ 2 marks each. (St 1m + Dev 1mk)

#### Suggested answer.

It is used by farmers to grow crops for food. Different types of trees for construction grow on different types of soil. Without soil plants could not grow / without plants there would be no food for humans.

(ii) With reference to **two** of the following factors explain their role in soil formation.

- Original rock,
- Climate,
- Micro-organisms,
- Vegetation.

(6)

**Two explanations** (*a*) 3 marks each (St 2 mks + Dev 1mk)

### Suggested answer.

Materials from which soils are formed, physical / chemical weathering breaks rocks into mineral particles – the minerals contain calcium / potassium which are essential foods for plants. Climate is important as different amounts of moisture and temperature determine certain soil types. Micro-organisms break down plant litter to form humus, bacteria change nitrogen into a form which plants can absorb. Fungi change organic matter into humus.

Certain types of vegetation influence soil type e.g. Coniferous forest lead to podzols while deciduous forest lead to brown earths.

## Question 4. ORDNANCE SURVEY AND AERIAL PHOTOGRAPH

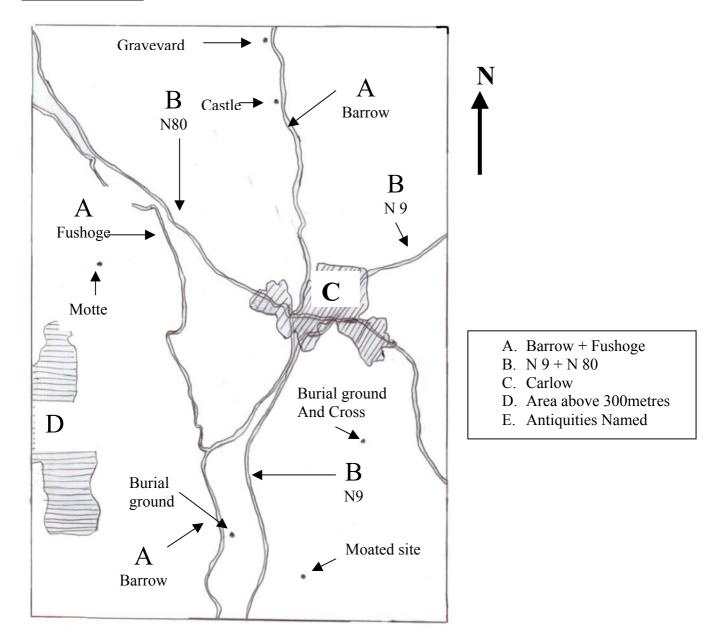
Study the Ordnance Survey map and the legend (key) supplied.

**A.** Draw a sketch map of the area shown on the Ordnance Survey map. Mark **and** identify the following features:

- The river Barrow and one named tributary.
- One National Primary road and one National Secondary road.
- The town of Carlow
- An area above 300 meters
- *Two antiquities*

(12)

**Five features** @ 2 marks each. (Location = 1 mk + Named 1 mk) Frame = 1mk + Correct orientation = 1mk. *Suggested answer.* 



## **Question 4. (continued)**

**B.** The Local Authority has made efforts to reduce traffic congestion in the town of Carlow. Using the photograph only describe two such measures. (6)

Two descriptions @ 3 marks each. (St 1mk + Dev 1mk + Loc 1mk)

### Suggested answer.

The yellow box at the cross roads in the left foreground helps prevent congestion by vehicles turning. Off street car parks like the one in right middle keep traffic flowing. Street lanes with direction arrows like those in the left foreground help control traffic flow. Double yellow lines, no parking – right foreground

C. Using both the map and the photograph explain three reasons why the town of Carlow developed at this location. (12)

**Three explanations** @ 4 marks each. (St 2mks + Dev 1mk + Loc 1mk) (Evidence from **both** Photo and Map must be given to obtain full marks.)

### Suggested answer.

Carlow grew up as a crossing point on the river Barrow because of the bridge in the left background.

The town is at the meeting point of many roads making it a nodal point e.g. N80, N9,R417 and the R430.

It may have developed as a defence settlement in the past as there is evidence of a castle at S717766

Carlow has developed as a tourist town e.g. there is boating on the river at S716767

## Question5. TOURISM

## Climatic data for Dublin and Lanzarote (Canary Islands)

**A.** With reference to the information above explain why Lanzarote would be a better choice than Dublin for the location of a 'beach holiday'. (10)

**Two explanations** @ 5 marks each. (St. 2mks + Dev 2mks + Dev 1mk) (Both explanations must use weather information supplied.)

#### Suggested answer.

Lanzarote has higher temperatures in the summer than Dublin e.g. it is  $30^{\circ}$ C in July in Lanzarote while it is  $18^{\circ}$ C in July in Dublin

There are more hours sunshine in Lanzarote e.g. 11 hours in July while Dublin only has 5 hours.

Longer periods of sunshine in June/July/August in Lanzarotte than in Dublin, which tourists prefer in order to relax at beaches/ sunbathe.

Temperature higher / warmer in Lanzarotte than in Dublin,  $9^0$  average difference over 7 months.

**B** *Tourists are attracted to locations other than beaches for a holiday, these include:* 

- Areas of Natural Beauty
- Cities
- Sporting and Recreation facilities.

With reference to specific examples you have studied discuss **two** of these attractions.

(10)

**Two locations @ 2 marks**. (Loc 1mk + Loc 1mk) **Two attractions discussed** @ 4 marks each, (St. 2mk + Dev 2mk)

#### Suggested answer.

The Burren – landscape features – flora – fauna – history/culture Dublin – Museums – theatres/cinemas – shopping – parks etc.

## Question5. (continued)

## C. 'Tourism may have <u>positive</u> and <u>negative</u> effects on people and the environment'

With reference to the diagram provided discuss two of these effects.

In your answer refer to both positive and negative effects.

(10)

**One positive discussed** @ 5 marks. (St. 2mks + Dev 2mks + 1mk) **One negative discussed** @ 5 marks. (St. 2mks + Dev 2mks + 1mk)

## Suggested answer.

There is increased employment in transport, accommodation and catering thus improving the standard of living for local people.

Roads, water services, electricity etc are improved to cater for the tourists, these benefit the local people.

The cost of living rises for the local people as the cost of food, services and property increase.

The high-rise hotels, which are being built, are extremely ugly and out of character with the landscape, they are poorly built and usually dominate the skyline.

#### **Summary Marking Scheme Resources and Economic Activity** Question 1. (i) Three explanations (a) 2 marks each. (St 1mk + Dev 1mk) A. (6) (ii) Named Scheme = 2mks **Outline of Scheme** 1 @ 4 marks (St2mk + Dev 2Mks) or (St2mk + Dev 2Mks) **Two Benefits** (a) 2 marks each (St 1mk + Dev 1mk) (10)B. (i) Three explanations **Two** (a) 3mks(St 2mk + Dev1mk) **One** (a) 2mks(St 1mk + Dev 1mk)(8) (ii) Three statements (a) 2 marks each (St 1mk + Dev 1mk) (6) Or (ii) Three ways (a) 2 marks each (St 1mk + Dev 1mk) (6)Population **Ouestion 2. Three differences identified** (*a*) 4 marks each.(St 2 mks + Dev 2 mks) A. (12)**Two contrasts** (a) 5 marks each. (St 2mks + Dev 2mks + Dev 1mk) В. (10)С. **One explanation** under each heading @ 4 marks. (St 2mks + Dev 2mks) (8) GEOGRAPHICAL MIX **Ouestion 3.** Answer **THREE** of the following **A**, **B**, **C**, **D** Mark all if answered by candidates, but credit marks for the best three only. Square bracket the surplus question A. (i) Two causes @2 marks each (St 1mk + Dev 1mk) (4) (ii) Two explanations (a) 3 marks each. (St 2mks + Dev 1mk) (6) B. (i) Three Statistics @ 2marks each (St 1mk + Stat 1mk) (6)(ii)Two types of aid @ 2 marks.(St 1mk + Dev 1mk). (4) С. (i) Statement = 2 mark Two explanations @ 1 mark each. (4) (ii)Two land uses (a) 3 marks each. (St 1mk + Dev 1mk + Loc 1mk) (6) D. (i)Two explanations (a) 2 marks each. (St 1m + Dev 1mk) (4)(ii)Two explanations (a) 3 marks each (St 2 mks + Dev 1mk) (6) Question 4. ORDNANCE SURVEY AND AERIAL PHOTOGRAPH Five features (a) 2 marks each. (Loc = 1 mk + Named 1 mk) A. **Frame** = 1mk + Correct orientation = 1mk. (12)**Two descriptions** (a) 3 marks each. (St 1mk + Dev 1mk + Loc 1mk) В. (6) С. **Three explanations** (a) 4 marks each. (St 2mks + Dev 1mk + Loc 1mk) (12)TOURISM 5. Question **Two explanations** (*a*) 5 marks each. (St. 2mks + Dev 2mks + Dev 1mk) A. (10)**B**. **Two locations** (a) **2 marks**. (Loc 1mk + Loc 1mk) **Two attractions discussed** (*a*) 4 marks each, (St. 2mk + Dev 2mk) (10)С. **One positive discussed** (*a*) 5 marks. (St. 2mks + Dev 2mks + 1mk) **One negative discussed** (*a*, 5 marks. (St. 2mks + Dev 2mks + 1mk) (10)