LEAVING CERTIFICATE EXAMINATION

GEOGRAPHY – HIGHER LEVEL

SAMPLE PAPER

N.B. Remember to return this paper with your answer-book. Otherwise, marks will be lost
1. Examine this diagram of a limestone pavement.

   a. Name the landforms:

      A. __________________________

      B. __________________________

   b. Name a region where such landforms may be found:

      __________________________

   c. Of what type of weathering are such landforms a result?

      __________________________

[8]

2. Identify an example of each of the following types of region:

   • An economic core region __________________________
   • A resource-decline region __________________________
   • A culture [language] region __________________________
   • A climatic region __________________________

[8]
3. Mass Movement

Apply the labels A to D appropriately to each of the following:

Rockfall _______  Mudflow ___________
Debris Avalanche _______  Rotational Slump ________
4. Europe

Fill in the following table, which refers to the European Union [EU]:

<table>
<thead>
<tr>
<th>Description</th>
<th>Letter</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not a member of the European Union</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One of the original six members of the EU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joined EU in 1973</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joined EU in 2004</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[8]
5. Examine these diagrams, showing the cyclical evolution of a fluvial landscape.

Using numbers 1 to 3, identify the stages: Young, Mature and Old.
6. Glaciated Landscape

Examine this diagram

1) Apply the labels A to C on the diagram as appropriate to these landforms:

<table>
<thead>
<tr>
<th>Landform</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminal moraine</td>
<td></td>
</tr>
<tr>
<td>Drumlins</td>
<td></td>
</tr>
<tr>
<td>Esker</td>
<td></td>
</tr>
</tbody>
</table>

2) What was the compass direction of glacial **advance** in the past?

______________________________.

[8]
7. **Soil Texture Classes**

Classify soils with the following compositions:

1. 50% Clay + 40% Sand + 10% Silt: ______________________________

2. 30% Sand + 60% Silt + 10% Clay: ________________________________

8. **Examine the OS extract of Mullingar supplied.**

Calculate in square kilometres the total area of land represented on this extract:

________________.
9. **Slopes**

Use these slope labels as appropriate in the spaces below:

Concave, Even, Stepped, Convex

10. **The Importance of Scale**

Associate these types of map with the appropriate scale:
Write the appropriate number in the spaces in the scales column.

<table>
<thead>
<tr>
<th>Map Type</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street map of a city for tourists</td>
<td>1:100,000,000</td>
</tr>
<tr>
<td>National motoring map</td>
<td>1:2500</td>
</tr>
<tr>
<td>Rural place maps</td>
<td>1:250,000</td>
</tr>
<tr>
<td>World atlas map</td>
<td>1:15,000</td>
</tr>
</tbody>
</table>
11. Satellite Imagery

a) Examine these images, taken in Aceh, Sumatra.

They show the effects of a ________________ on 26 December, 2004.

This was caused by a ________________ in the Indian Ocean.

Another possible cause of such events is _________________________.

b) This image shows the effects of ________________ in Amazonia.
Examine these three population pyramids. In the boxes provided, identify which represents population growth which is:

- slow
- zero/negative
- rapid
Examine the Ordnance Survey extract of the Mullingar region supplied.

A. Draw a sketch-map to **half scale** to illustrate the major drainage features of the area. [20]

B. Examine the formation of any **two** Irish landforms, with reference to the surface processes which formed them. [30]

C. Explain how the effects of isostatic processes can be seen in the Irish landscape today. [30]
Examine this map of global crustal plates.

A. With reference to the labels on the map, identify:

- A Convergent Margin
- A Divergent Margin
- A Transverse Margin
- A Mid-plate Volcanic Island Arc

B. Explain – with the aid of a labelled diagram or diagrams – the process of global crustal plate movement as it is currently understood.

C. Explain how Plate Tectonics has aided our understanding of the occurrence of volcanic activity.
A. In your answerbook, write a suitable description for each of the labels A, B, C and D. [20]

B. In the case of one of the three main rock groups, explain, with reference to Ireland:

- How such rocks are formed
- How rock-type can produce a distinctive landscape. [30]

C. Examine in detail one example of human interaction with the rock cycle. [30]
A. Draw a sketch-map of Ireland. On it mark and name two contrasting regions. [20]

B. Select a non-Irish, European region and explain how (i) relief and (ii) climate have influenced the development of its agriculture. [30]

C. Examine one of the economic challenges facing a non-European region of your choice. [30]
A. Examine this map of Europe.
   In your answerbook, associate each of these descriptions with the letters A,B,C,D:
   - An administrative region
   - A region defined by language
   - An economic core region
   - A geomorphological region

   [20]

B. Explain, with reference to an example you have studied, the development of one economic core region in Europe.

   [30]

C. Examine the development of one major economic activity in one non-European region you have studied.

   [30]
Question 6:

A. “A region is an area which may be identified by one or more characteristics”. Briefly explain this statement, using a sketch-map to illustrate an example or examples. [20]

B. Examine two factors which have influenced the development of distinct cultural divisions in a European region which you have studied. [30]

C. Explain with reference to one example the causes and consequences of change in the boundaries of a region over time. [30]
Examine this table.

A. Use graph paper to draw a graph suitable to illustrate these data. [25]

B. Examine the major reasons for the trend shown by these data. [25]

C. Explain how levels of economic development vary over time. [30]
A. Study this pie-graph showing how the retail price of a jar of coffee is shared among the various groups involved in the coffee trade.

- Calculate in Euro the share which the retailers receive.
- Which group receives the lowest share?
- Calculate the percentage share which the Shippers and Roasters receive. [20]

B. Explain why the producers of commodities such as coffee receive so little of the final retail price. [30]

C. Ireland has experienced both success and failure as a location for Multi-national Companies.

Explain one reason why Ireland continues to be a favoured location for MNCs and also one reason why some MNCs have left Ireland to move to other locations. [30]
Growth Rates and Shares of Ireland’s Total Primary Energy Requirement

<table>
<thead>
<tr>
<th>FUEL</th>
<th>Growth % 1990 - 2003</th>
<th>Av Annual Growth Rate % 1990 - 2003</th>
<th>Shares % 1990</th>
<th>Shares % 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>-11.6</td>
<td>-0.9</td>
<td>23.0</td>
<td>12.9</td>
</tr>
<tr>
<td>Peat</td>
<td>-38.3</td>
<td>-3.6</td>
<td>14.4</td>
<td>5.7</td>
</tr>
<tr>
<td>Oil</td>
<td>86.6</td>
<td>4.9</td>
<td>45.5</td>
<td>54.1</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>154.8</td>
<td>7.5</td>
<td>15.4</td>
<td>24.9</td>
</tr>
<tr>
<td>Renewables</td>
<td>54.2</td>
<td>3.4</td>
<td>1.8</td>
<td>1.8</td>
</tr>
<tr>
<td>Total</td>
<td>57.0</td>
<td>3.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Growth Rates and Shares of Ireland’s Total Primary Energy Requirement by Sector

<table>
<thead>
<tr>
<th>SECTOR</th>
<th>Growth % 1990 - 2003</th>
<th>Av Annual Growth Rate % 1990 - 2003</th>
<th>Shares % 1990</th>
<th>Shares % 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry</td>
<td>23.1</td>
<td>1.6</td>
<td>27.2</td>
<td>21.4</td>
</tr>
<tr>
<td>Transport</td>
<td>122.8</td>
<td>6.4</td>
<td>21.9</td>
<td>31.2</td>
</tr>
<tr>
<td>Residential</td>
<td>27.1</td>
<td>1.9</td>
<td>31.3</td>
<td></td>
</tr>
<tr>
<td>Commercial/Public</td>
<td>88.1</td>
<td>5.0</td>
<td>16.1</td>
<td>19.3</td>
</tr>
<tr>
<td>Agriculture</td>
<td>23.7</td>
<td>1.6</td>
<td>3.5</td>
<td>2.8</td>
</tr>
</tbody>
</table>

A. Examine the tables above.

1) Which fuel showed the greatest growth rate over the period?
2) Which fuel showed the greatest change in share 1990/2003 and calculate the change in %
3) Calculate the % share for the Residential sector in 2003.

[20]

B. Examine:

1) The potential economic implications of the continuing dominance of oil as an energy source.
2) The environmental implications of the 122.8% growth in transport energy consumption.

[30]

C. Analyze one of the major factors – apart from energy - which influenced the location of a manufacturing industry which you have studied.

[30]
A. Study this chart, showing Irish Migration Patterns between 1987 and 2004.

- In which year did emigration peak?
- When did immigration first exceed emigration?
- Calculate the difference between emigration and immigration in 2003.

[20]

B. Study the 1:50000 Ordnance Survey extract supplied with this paper.

1) Name and locate, using grid references, two patterns which can be identified in the rural settlement of the region shown on the extract.
2) Explain why each of the patterns developed.

[30]

C. Explain how the unwise development of a natural resource has created overpopulation in a region which you have studied.

[30]
**Question 11:**

Examine the aerial photograph of Mullingar supplied with this paper.

A. On a sketch-map [NOT a tracing] of the town, show and identify four different zones of urban land-use. [20]

B. Examine briefly one theoretical model which attempts to explain the development of land-use zones in a developed world city. [30]

C. Comment critically on the operation to date of the Irish Government’s National Development Plan. [30]

**Population Structure – Ireland – Census 2002**

<table>
<thead>
<tr>
<th>Age [years]</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 – 85+</td>
<td>436,001</td>
<td>11</td>
</tr>
<tr>
<td>15 – 64</td>
<td>2,653,774</td>
<td>68</td>
</tr>
<tr>
<td>0 – 14</td>
<td>827,428</td>
<td>21</td>
</tr>
<tr>
<td>Totals</td>
<td>3,917,203</td>
<td>100</td>
</tr>
</tbody>
</table>

A. Examine this table. Calculate the Dependency Ratio for Ireland. [20]

B. Examine two of the major implications for Ireland of such a population structure. [30]

C. Comment on the need for the development of a common Immigration Policy by the countries of the European Union. [30]
13. Discuss critically the “First World/Third World” or “North/South” model of world economic development.

14. “Global Warming is an environmental issue which can be effectively tackled only through global action.” Discuss.

15. Write a critical analysis of the statement that “Irish society has yet to commit itself realistically to sustainable use of resources.”

16. Assess the global implications of the continued felling of tropical rainforests.

17. Examine how human activities can accelerate soil erosion.

18. Illustrate the development of biomes, with reference to a specific example.
19. Analyze the importance of language as a cultural indicator. [80]

20. Discuss the difference between race and ethnicity as indicators of identity. [80]

21. “In an increasingly globalized world, the sense of culture and identity is becoming increasingly divorced from the nation-state”. Discuss. [80]

22. Examine the influence of climate on economic development. [80]

23. Discuss the influence of mid-latitude depressions on Cool Temperate Oceanic climate zones. [80]

24. Analyze energy-flows in the ocean-atmosphere environment. [80]
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