

# Marking Scheme

7<sup>th</sup> International Geography Olympiad

Chartage, Tunisia

August 2008





## Marking scheme - overview

<b>1 International tourism</b>	<b>2 Climate and climate change</b>	<b>3 Bogotá - Colombia</b>	<b>4 Energy futures and sustainability</b>	<b>5 Pot-in-pot system</b>	<b>6 Climates of China and the Olympic Games</b>	<b>7 Food problems</b>
1a- 4m	1 - 1m	1 - 2m	1 - 1m	1a -1m	1 - 4m	1 - 2m
1b- 2m	2a- 1m	2 - 2m	2 - 1m	1b- 1m	2 - 1m	2 - 1m
2 - 2m	2b- 1m	3 - 2m	3 - 1m	2 - 1m	3 - 2m	3 - 2m
3 - 2m	2c- 2m	4 - 3m	4 - 3m	3 - 4m	4 - 1m	4 - 3m
4 - 4m	3 - 1m	5 - 2m	5 - 3m	4 - 3m	5 - 1m	5 - 2m
	4 - 3m		6 - 4m		6 - 1m	
	5 - 2m					
	6 - 1m					
<b>14 marks</b>	<b>12 marks</b>	<b>11 marks</b>	<b>13 marks</b>	<b>10 marks</b>	<b>10 marks</b>	<b>10 marks</b>

## Section 1 International tourism

1a (4m)

**Four** of the following aspects. **For each good aspect mark ½.**

- International tourism has grown exponentially since 1950.
- Europe and the Americas have dominated international tourism until now, but as their markets mature their rate of growth is slowing down.
- Tourism to the Asia/Pacific region is expected to continue growing strongly and overtake that to the Americas by 2010.
- The increasing affluence of the very large populations in Asian countries such as China, India and Indonesia and Japan is contributing to this rise as they travel to other countries within their own region.
- As with emerging destinations in Africa and the Middle East, where tourism also continue to grow strongly, tourists are also attracted to newer markets.

**Three** of the following reasons for the growth of international tourism:

- rising affluence
- expansion of commercial airlines
- introduction of cheap fares
- increasing vacation time

**three good reasons = 2 marks,**

**two good reasons = 1 mark,**

**one good reason = 0**

1b (2m)

**Two** of the following reasons for the slowing down of international tourism (**1 mark each**):

- Concerns about greenhouse gas emissions of planes, with more people choosing to holiday in their own country or to use video-conferencing and other technologies instead of international business travel.
- If terrorist attacks are targeted at travellers and cause substantial loss of life, there would be some reduction in tourist numbers. (However, UNWTO does not appear to be anticipating that these factors will have much effect.)
- Slowing down of economic growth or economic decline / weakening of the American Dollar / oil (kerosene) prices are high and will continue to rise in the future.

2 (2m)

The Top 10 Tourism Destinations are heavily concentrated in Europe, with 7 in Europe, 2 in North America and 1 in Asia.

1

**One** of the following reasons:

1

- This concentration reflects the concentration of people with large disposable incomes in Europe and North America. Most of their travel is to nearby countries.
- In Europe there are many famous (historical) sites, so tourists from all over the world come to visit these places.
- Europe consists of many countries, so it happens frequently that people are crossing borders being on holiday.

3 (2m)

China has overtaken Italy in the rankings.

0

Reasons: China is increasingly more open to tourists; tourists still avoiding long flights in 2003 in the aftermath of the terrorist attacks in Sept 2001 and the SARS epidemic but by 2006 these effects had dissipated; tourists looking for “new” destinations.

1

Germany, Mexico, Austria, Russia (7 to 10 in 2006) were in the reverse order in 2003.

0

Reasons: Germany had a big boost to tourism in 2006 because of the Football World Cup; Mexico seen as a “new” and exciting destination compared to the established market of Austria, so growing faster; Russia’s arrivals fell, perhaps reflecting the perception of a less open society than in 2003.

1

4 (4m)

For each good answer mark ½ .

*Sample answer*

Table 1. Impacts of International Tourism		
	Positive	Negative
Environmental	<i>local people see an economic value in wildlife/natural areas attracting tourists and so preserve it, e.g. African safaris</i>	<i>overuse of an area can harm the natural habitat, e.g. boat anchors and pollution on Great Barrier Reef</i>
Social	<i>sharing of ideas across cultures can benefit tourists and local people, giving both a more global perspective</i>	<i>large numbers of tourists can disrupt indigenous cultures; communities can be displaced for resort developments</i>
Economic	<i>can bring much needed foreign currency to developing countries; employs large numbers of people in developed countries as well</i>	<i>catering for wealthy tourists can inflate prices of everyday goods; much of the expenditure does not stay in the country, e.g. international hotels</i>
Political	<i>can reduce the isolation of a country, broaden knowledge of other political systems, foreigners can see what's going on</i>	<i>money from tourists could prop up a corrupt government; the tourist industry might support a dictator because they don't want the instability of change</i>

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**Total = 14 marks**

## Section 2 Climate & climate change (global warming)

**1** (1m)  
Arctic tundra

**2a** (1m)  
close to Verkhoyansk or Oymyakon in North East Siberia, East of the river Lena  
**Markers still have to decide about the margins of the correct area!**

**2b** (1m)  
from minus 90°F to minus 96°F or from minus 66°C to minus 72°C

**2c** (2m)

- continental environment (big land mass) with little influence from the sea 1
- isolated from the South by mountains 1

**3** (1m)  
When the Arctic ice cover decreases, the Gulf Stream heads further North.

**4** (3m)  
**Two** of the following mammals (**each good answer 1 mark**):

- polar bear
- seal
- walrus
- arctic fox???

They use sea ice as a resting place while hunting for food and they give birth to their babies on ice. 1

**5** (2m)  
**Two** of the following (**each good answer 1 mark**):

- Shipping is easier.
- Shipping is safer.
- Resources of fossil energy might become available.

**6** (1m)  
Countries surrounding the Arctic claim parts of the Polar area.

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**Total = 12 marks**

### Section 3 Bogotá (Colombia)

1 (2m)

Bogotá has only grown towards the North, the West and the South due to the mountain range in the East (Cordillera Oriental).

2 (2m)

- Before 1985. 0
- Until 1985 Bogotá's share of the national population grew rapidly but has stagnated since then. 2

3 (2m)

- C 1
- E 1

4 (3m) (each good answer 1 mark):

The new CBD has developed where:

- The purchasing power is, in the rich North of Bogotá.
- More building space is available.
- Land prices are lower.

5 (2m)

- The neighbourhood of very low socio-economic status in the North is located along the Rio Juan Amarillo. 1
- This is an area exposed to flooding. 1

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**Total = 11 marks**

## Section 4 Energy futures and sustainability

1 (1m)  
alternative 2

2 (1m)  
alternative 3

3 (1m)  
alternative 2

4 (3m)  
Question 4 focuses on geographical distributions of energy supply and demand, and looks for a relationship between these and questions about the sustainable use of energy.  
- **3 marks** may be awarded, if different patterns of energy resources and use are related to emerging sustainability and accompanied by appropriate country names,  
- **2 marks** for an answer that otherwise makes some good points,  
- **1 mark** for any two statements relevant to the question,  
- **0** for less than this.

Answer could note:

The geographic distribution of energy resources differs from that of energy use.

- Most conspicuously, the oil-rich countries around the Arabian Sea were leading suppliers of oil to the developing economies of Europe in the 20<sup>th</sup> Century with the US being another major oil producer. With increasing scarcity of oil in the last three decades, oil in more difficult locations (e.g. North Sea) has fuelled industrial economies of Europe. **(1m)**

- Coal, as a second fossil fuel, is much more widely spread, and has a longer history of exploitation in industrial economies. Countries like Japan with limited natural energy resources, have build an industrial base on importing coal from places like Australia. **(1m)**

- The pressure on fossil fuels has led to a re-evaluation of their use, and renewable natural resources, typically wind and water are being utilised in rapidly developing economies like China. Bio-fuels have been part of the energy supply of countries, like Brazil, where there is a plentiful land supply and good growing conditions, although the replacement of food crops is currently causing concern. **(1m)**

- In summary, few countries are energy rich, those without energy resources face increasing economic pressure, and efforts to produce a sustainable energy supply have thrust new options (wind and biomass) onto the economic agenda of many countries.



5 (3m)

Question 5 looks just at oil, exploring the total demand in relation to per capita use.

- **3 marks** may be awarded to answers that classify and explain geographical patterns in per capita oil use, with reference to identified countries,
- **2 marks** may be awarded to answers that classify the distribution but does not relate this to the nature of economies,
- **1 mark** for any two statements relevant to the question,
- **0** for less than this.

Answer could note:

- The most striking feature of the distribution is the **high level of per capita use** in North America and parts of Northern Europe. These are the established industrial economies. Only Saudi Arabia, a major energy source, shows comparable levels of per capita consumption. **(1m)**
- In the **mid ranges of consumption per capita** we find much of Eastern Europe and South America, while much of Asia (notably India and China) have high oil demand, but comparatively low levels of use per capita as a function of a very substantial population base. **(1m)**
- In Africa there is **low use or no data for almost every country**; this reflects modest energy resources (outside Nigeria and Libya), agricultural and subsistence economies and significant populations. **(1m)**
- In summary, the patterns are a consequence of different distributions of natural resources and different economic histories; more industrial countries generally have higher per capita oil consumption than more agricultural economies.

6 (4m)

Question 6 looks just at an emerging renewable source; wind. The answer should refer to energy types rather than the geographies of different countries.

- **4 marks** for an answer that shows understanding of (i) the costs and benefits of developing renewable technologies for industrial supply and (ii) their potential rather than delivered capacity.
- **3 marks** for an answer that talks about wind power for industrial supply and its emergent rather than installed capacity.
- **2 marks** if the benefits alone are discussed.
- **1 mark** for any two statements relevant to the question,
- **0** for less than this.

**Answer could note:**

While geothermal generation is possible in only a few places, wind turbine locations are geographically widespread and therefore attractive energy sources.

Geothermal uses can include localised heat exchange units, but large scale industrial generation occurs in very few countries. **(1m)**

Because of this widespread distribution, wind energy has good potential to deliver efficient renewable electricity to national grids for industrial use, and some capacity to support the transport sector through electrification of networks/vehicles. **(1m)**

Wind farms of multiple turbines have environmental consequences, often in terms of their visual impact, but their contribution to the national electricity grids will be of increasing importance in the 21<sup>st</sup> Century. **(1m)**

Currently, no industrial economy generates more than 20% of its supply from renewable sources outside hydro-electricity, but with the growth rates shown in Resource 3. There is a good chance that this supply threshold will be raised. **(1m)**

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**Total = 13 marks**

## Section 5 Pot-in-pot system

**1a** (1m)

semi-arid climate / As and/or BS climate (Köppen classification)

**1b** (1m)

high temperature

**2** (1m)

With the pot-in-pot device a drop in temperature can be realized inside the inner pot which causes less spoilage of food.

**3** (4m)

**Four** of the following arguments (**each good answer 1 mark**):

- The technique of making pottery is relatively simple and *local people are skilled* at doing it.
- The supply of *raw materials* is presumably abundant in the local area since it is a traditional skill.
- *Energy demand* is limited, either to make it or to use it.
- The *price* of the product can be kept *affordable* for the local people and it is also cheap to maintain.
- The device is so *simple* that it is easy to use.

**4** (3m)

**Three** of the following answers (**each good answer 1 mark**):

- Offering job opportunity → reducing migration.
- Liberating girls from daily work of selling food products → increasing access to education for girls.
- Preventing rapid decay of food → raising public health.
- Allowing women more involvement in the community → emancipation of women.
- Allowing investment in improved agricultural productivity and housing → increasing well being in general / better prospects (hope) for the future.

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**Total = 10 marks**

## Section 6 Climates of China and the Olympic Games

- |   |  |   |
|---|--|---|
| 1 | (4m)   |   |
|   | A: Lhasa   | 1 |
|   | B: Shanghai  | 1 |
|   | D: Guangzhou   | 1 |
|   | E: Urumqi  | 1 |
| 2 | (1m)   |   |
|   | proposition 3  |   |
| 3 | (2m)   |   |
|   | 1: Lhasa   | 1 |
|   | 2: Guangzhou   | 1 |
| 4 | (1m)   |   |
|   | 315.000 m <sup>3</sup> (2,5 million x 3 liter/flush x 3 flushes x 14 days) |   |
| 5 | (1m)   |   |
|   | city 4: Urumqi   |   |
| 6 | (1m)   |   |
|   | solution 3   |   |

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**Total = 10 marks**

## Section 7 Food problems

- 1 (2m)
- Most people in developed countries eat food containing high protein and high fat foods, such as meat and dairy products. 1
  - There is a big consumption of instant and fast foods. This food can be cooked easily, but has low nutritional value. 1
- 2 (1m)
- The standard of living has risen remarkably through economic development.
- 3 (2m)
- To take part in the Green Revolution a farmer needs high-cost agricultural machinery, chemical fertilizers and agricultural pesticides. 1
  - As a result, only people of higher economic status can profit from the Green Revolution. 1
- 4 (3m)
- Three** of the following:
- The hierarchical system between landowner and peasant in rural areas is still very strong, and the agricultural technology is still at a low level.
  - The cultivation of crops for export has priority over the cultivation of crops for self-sufficiency.
  - Natural disaster and regional conflict have run the agricultural land to ruin.
  - The governments in Africa have financial difficulties from debt repayments, and don't have enough money to subsidize the agricultural sector.
- 5 (2m)
- In Europe and North & Central America the growth of the food production equals the population growth, 1
  - whereas in Asia, China and South America food production is growing faster than growth of the population. 1

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**Total = 10 marks**