MARKSCHEME

May 2006

GEOGRAPHY

Higher Level and Standard Level

Paper 1

Core Theme: Population, Resources and Development

1. (a) **With reference to the diagram, describe the changes in the relationship between GDP per person and the under 5 mortality rate in Country A *and* in Country C over the period 1975 to 2001.**   *[4 marks]*

In Country A the mortality declines steadily although GDP remains relatively unchanged *[2 marks]*; in Country C the mortality rate declines despite fluctuating and declining GDP per person *[2 marks]*. However, these marks should not be allocated unless there is some quantification of the statements and an overview of the general patterns.

   (b) **Briefly describe and explain the trends in the under 5 mortality rate and GDP per person in Country B.**   *[2+3 marks]*

Two main trends are evident: under 5 mortality initially decreases (with some fluctuations) as GDP per person increases *[1 mark]*, thereafter there is no change in under 5 mortality, despite a rapid increase in GDP *per capita* *[1 mark]*. The explanation could indicate an awareness that, once health conditions have improved, there is a ceiling below which under 5 mortality cannot fall *[2 marks]*. The remaining *[1 mark]* should be awarded for any development of this statement and/or quantification.

   (c) **Evaluate the use of measures of mortality as indicators of development.**   *[6 marks]*

A variety of responses can be expected. However, the assumption is made that all responses will recognise that measures of mortality are good indicators of some aspects of development. Another valid response could state that the infant mortality rate on its own is one of the most important indicators of development, according to the UN *[1 mark]* for either response. The remaining *[5 marks]* should be allocated to any development of this statement, such as mortality rates having declining validity as a country develops, or when used in combination with other indicators. Specific reference to different mortality rates and indicators would also be acceptable as development of the statement.

In the absence of any attempt at evaluation, or when only one mortality rate is considered, no more than *[4 marks]* should be awarded.

(d) **Referring to** *one* **country of your choice, discuss how external factors (outside the country),** *excluding food aid***, have affected its level of economic development.** *[10 marks]*

Responses would obviously depend on the country and factors chosen, but most of the following factors could be considered:

- factors leading to positive development: the impact of trade agreements and access to markets, availability of soft loans and aid;
- factors leading to negative development: trade tariffs and trade barriers, market prices set by the richer countries, debt burden arising from easily available loans from the past, conditions attached to aid and loans (structural programmes), AIDS, physical factors which have their origin external to the country (tsunami, global warming).

Some factors, such as migration, transfers of technology, TNCs, tourism could be accepted as having both positive and negative impacts.

Other factors, specific to the country, could also be included.

The marks should be allocated according to the markbands, but if there is no reference to a specific country, or if only one factor is addressed, or the response is mainly descriptive, the marks awarded should not move beyond band E.

2.   (a)   Describe the trends in total food availability shown in the diagram.   *[3 marks]*

The MEDCs have greater food availability than the LEDCs *[1 mark]*; the MEDC values show fluctuations over time while the LEDC values show a steady increase *[1 mark]*. The remaining *[1 mark]* should be allocated to any quantification of these trends. Trends may be implied in a comparison of LEDC and MEDC values.

(b)   Explain how the data shown illustrates the problem of malnutrition.   *[5 marks]*

Responses would be expected to show an understanding that malnutrition is manifested as undernourishment and hunger in LEDCs and obesity in MEDCs *[1 + 1 mark]*. Reference to the differential availability of food in these two regions as shown in the data should illustrate the point *[1 mark]*. The final *[2 marks]* should be allocated to any fuller development, such as the larger availability of fats and proteins in MEDCs and the fact that the degree of malnutrition is decreasing in LEDCs despite their rapidly growing populations.

(c)   With reference to examples, explain why there has been a decrease in the production of food per person in some parts of the world.   *[7 marks]*

It would be impossible to answer this part question without making some reference to a particular region or area, and the responses would be expected to comment on the reasons specific to the area chosen *[1 mark]*. However, all would have to cover the growing populations *[2 marks]*. Other factors which could be considered would be environmental (desertification, drought, over-exploitation of the land), technological, economic (lack of finance and the increasing dominance of cash crops over food crops), political (civil strife), and the incidence of AIDS. In MEDCs the increasing reliance on imported foodstuffs and the responses to environmental concerns could also be considered *[4 marks]*.

If candidates suggest that the decrease in production is due to a shift from agricultural labour to other sectors, this should be accepted, provided that they make it clear that this had led to a decrease in *per capita* food production.

(d)   "Food aid benefits rich countries as much as poor countries." Discuss this statement with reference to examples.   *[10 marks]*

This question requires candidates to make an evaluation based on an analysis of both the benefits and disadvantages of food aid in rich and poor countries. Responses could refer to factors in the richer countries, such as the political and economic benefits of reducing surplus stocks, and of establishing links with poorer countries, improving reputation and understanding. The factors to be considered in poorer countries include the immediate humanitarian benefits, the various problems of dependency (distortion of local markets and corruption) and the impact of changing traditional diets. Any other valid factors should also be credited. The strongest responses would probably be based on specific case studies. There would be no requirement for the mark allocation to be equally divided between the benefits of rich countries and poor countries.

Another valid approach could be to either agree or disagree with the statement, providing a justification for the viewpoint adopted.

Marks should be allocated according to the markbands. In the absence of any developed examples, the marks awarded may not move beyond band E.

3.   **(a)**   **Give an example of a resource type A and a resource type B and justify your choices.**   *[2+2 marks]*

Responses should identify resource type A as renewable (or an example of renewable – such as water) *[1 mark]* and B as non-renewable resource (or an example of non-renewable, such a oil) *[1 mark]*. The justification should show an awareness of the recycling of resource type A from waste, as opposed to resource type B where little or no such recycling takes place *[2 marks]*.

(b)   **With reference to the diagram and to examples, describe *one* way in which the volume of waste can be managed by each of the following:**

(i)   **recycling at the consumption stage**   *[2 marks]*
(ii)   **conservation at the processing stage.**   *[2 marks]*

Several examples could be given, but responses would be expected to show an understanding of the diagram and to give a clear explanation of how the waste can be recycled and conserved. Possible examples could be **(i)** the use of "brown" water, composting and **(ii)** the introduction of technology to reduce the consumption of raw materials in the processing stage *[2 × 2 marks]*.

(c)   **Describe and explain the changes in the global consumption pattern of *one* of the following resources: water, *or* a fossil fuel, *or* a forest product.**   *[2+5 marks]*

The changes in consumption pattern could be either spatial or over time, but candidates should provide a brief description of the changes *[2 marks]* and a clear explanation for them *[5 marks]*. If oil is chosen, for instance, it would be expected that some comment is made of the increasing level of consumption (with a few fluctuations associated with political events), especially in the industrialized world where consumption is mainly for transport (and less so in manufacturing or power generation), and the growing challenge from alternative forms of energy and from environmental constraints. Generalized explanations, with no supporting evidence, should not gain more than *[2 marks]* of the *[5 marks]* available for explanation.

(d)   **Examine the economic costs and benefits of a sustainable development policy of your choice.**   *[10 marks]*

Responses would need to show an understanding of sustainable development. Candidates could choose to discuss this question with reference to a policy, scheme or method at any spatial or temporal scale, but the emphasis would have to be on the cost/benefit analysis of such a policy. Examples could consider the sustainable development of a single resource or examine an integrated scheme that involves all (or many) elements of development. Topics that could be considered in the response may include forestry, water, energy, agriculture, eco-tourism and sustainable cities.

Please accept sustainable population policies, such as practiced in Mauritius as legitimate.

Marks should be allocated according to the markbands.