MARKSCHEME

May 2004

GEOGRAPHY

Higher Level and Standard Level

Paper 1

7 pages

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1.   **(a)**   **State the year when the rate of population growth is greatest, and**
              then calculate the rate and explain briefly how this was done.   *[3 marks]*

      This is a straightforward question designed to test specific skills. The year would be
      1963, although it would be acceptable to credit any answer in the range 1962 to 1964 for
      [1 mark]. Another *[1 mark]* should be awarded for a growth rate that ranges between
      3.2 % (or 32 ‰) and 3.4 % (the accurate answer is 3.3 %). The remaining *[1 mark]*
      should be given for some indication that the answer has been calculated by determining
      the difference between the CBR and the CDR.

      (b)   **Explain why the highest birth rate does not coincide with the highest**
              fertility rate.   *[2 marks]*

      A straightforward response showing an understanding of the two rates should gain the
      [2 marks] available for this question – something to the effect that birth rate is a
      measure of the actual number of births in a particular year, whereas fertility rate is a
      longer term measurement of the expected number of children per woman, given no
      change in the demographic factors from when the rate is calculated. Alternatively,
      candidates could attempt to explain why the year of the highest birth rate does not
      coincide with the year of the highest fertility rate.

      (c)   **Describe and explain the pattern of population growth that results**
              from the mortality and fertility rates of the country shown in the
              diagrams.   *[10 marks]*

      It is expected that responses would note the changes over time of both the CBR and
      CDR and of the fertility rate, all of which move from high fluctuating values in the early
      stages (indicating rapid population growth overall) to a much more stable state in the
      later stages, with all three rates now showing natural growth rate at, or just below,
      replacement level. The explanations could attempt to use the demographic transition
      model as a basis for accounting for the changes, but would have to provide acceptable
      explanations for the earlier fluctuations (including accounting for the dramatic reversal
      in 1960 which, in this case, was due to famine – although other realistic causes could be
      accepted) and the demographic policies responsible for the later trends. Up to *[4 marks]*
      could be awarded for description alone, provided there is some quantification. The
      remaining *[6 marks]* should be allocated to developed and accurate explanations.
      (Although the data is drawn from China and would probably be recognized as such by
      most candidates, knowledge of this should not be necessary in obtaining full marks.)

(d)   Discuss the problems that any country with similar projected fertility rates could face in the immediate and long term future.   *[10 marks]*

To achieve the highest marks, responses would concentrate on the problems specific to a population with a low fertility rate. These could include economic impacts such as a small number entering the employment sector and the costs of an aging population, *etc.*. There should also be some comment on the socio-cultural implications for a population where "one-child" families become a common occurrence.

Candidates would not be expected to comment on all three projections for full marks.

The marks should be allocated according to the markbands.

2. **(a)** **Choose any *two* countries marked on the map and match their numbers with their names.** *[2 marks]*

The purpose of this question is to allow candidates to demonstrate a knowledge of factually relevant information, one of the objectives of the programme. Any two of the countries matched as follows should be awarded a mark *[2 × 1 mark]*: 1. Guinea Bissau; 2. Sierra Leone; 3. Mali; 4. Niger; 5. Ethiopia; 6. Congo DR; 7. Burundi; 8. Tanzania; 9. Malawi; 10. Zambia.

(b) **Describe the limitations of the indicators shown in the diagram (GDP *per capita*, debt and malnutrition) as measures of development.** *[5 marks]*

Any reasonable explanation of why this should be the case for each of the indicators should be awarded a mark *[3 × 1 mark]*. The remaining *[2 marks]* should be allocated to any use of examples or to any development, such as noting that all the indicators, taken together, could prove to be misleading.

(c) **By means of an annotated sketch population pyramid, describe *four* demographic characteristics that are common to all the countries marked on the map.** *[8 marks]*

Being the poorest countries in the world, candidates would be expected to describe, by means of annotations on the sketch population pyramid, the following demographic characteristics: the high fertility rates *[1 mark]*; the high mortality rates *[1 mark]*, the short life expectancy *[1 mark]*. A further *[1 mark]* could be awarded for some annotation noting the high infant mortality rates, or the high proportion in the youthful cohorts, or the disruption of the pyramid caused by the incidence of AIDS, or some other valid observation. The sketch pyramid should be awarded up to *[4 marks]* for presentation (neatness, labelling of axes, *etc.*) and accuracy (broad base, concave sides).

In the absence of any attempt at annotation, no more than *[6 marks]* should be awarded.

(d) **With reference to specific examples, evaluate how effective trade has been in solving poverty and malnutrition.** *[10 marks]*

Candidates would be expected to comment on most of the following: the advantage of lower production costs in the LEDCs, the benefits of trade preferences with the richer countries (sugar, bananas, for instance), both of which provide much needed foreign exchange for development, but also the switch away from subsistence agriculture to cash crops for export, the problems caused by trade tariffs and other barriers, the dumping of surpluses at prices which disrupt local markets in LEDCs and the impact of heavy agricultural subsidies in the EU, USA and Japan, and the way in which the price for many exported agricultural products is controlled by the markets in the MEDCs and not by the producers in the LEDCs. Products other than agriculture could be considered.

In the absence of any example, or of any evaluation, the maximum score should be limited to *[6 marks]*.

The marks should be allocated according to the markbands.

3. **(a)** **Describe the pattern of consumption pressure per person shown in the diagram.**   *[3 marks]*

The most obvious pattern is that the industrialized countries have an above average consumption pressure per person, while the LEDCs are below average *[1 mark]*. The remaining marks should be allocated to some quantification of this grouping *[1 mark]* and noting any anomalies *[1 mark]*. *[0 marks]* should be allocated for a simple listing of the countries and their consumption rates if no further attempt has been made to identify a pattern of sorts.

(b) **Briefly explain why there is no correlation between the two sets of data shown in the diagram (consumption pressure per person and consumption pressure of the whole country).**   *[3 marks]*

The question is aimed at ensuring that candidates are able to distinguish between values *per capita* and absolute values. Any statement making such a point should be awarded *[1 mark]*, with the remaining *[2 marks]* being awarded for justification and/or quantification, or the inclusion of a statement to the effect that a correlation would only exist if all the countries had the same size population.

(c) **With reference to *one* resource of your choice, describe and explain the recent changes in its pattern of production and consumption. (Any period within the past 50 years would be acceptable.)**   *[7 marks]*

Any response would be expected to provide a general description of the changes in production and consumption, either spatially, or over time, or a combination of both *[3 marks]*. The remaining *[4 marks]* should be awarded to an explanation for these changes. These could include comments that the increases could have arisen as a result of the continued growth of population, of increased affluence, of technological developments and of the demands that come with economic development. The spatial changes could have resulted from the exhaustion of old sources or from the discovery of new sources of supply.
Candidates would not be expected to cover both spatial and temporal changes.

(d) **Explain the concept of development and then assess the impact of development on resource exploitation and the environment at a global scale.**   *[12 marks]*

Responses would be expected, in the explanation of development, to explain that this concept is more than simply economic and involves other aspects, such as equity and social justice, sustainability, interdependence and provision of basic needs. Responses would then be expected to consider most of the following: countries that are economically highly developed have generally exhausted their own resources and rely, for continued development, on resources drawn from other areas – this would have an impact on the environment; the LEDCs, in the process of developing, often ignore the consequences of resource exploitation and environmental degradation; the richer, more populous countries show a greater awareness of the environmental consequences of resource exploitation. The stronger responses would be expected to include some examples.

Up to *[3 marks]* could be allocated to the explanation of the concept of development. The remaining marks need not necessarily be evenly divided between the other two parts of this question (resource exploitation and the environment) – up to *[8 marks]* could be allocated to either part.

The marks should be allocated according to the markbands.