



MARKSCHEME

May 2009

GEOGRAPHY

Higher Level and Standard Level

Paper 1

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Core Theme: Population, Resources and Development

1. (a) **Define *infant mortality rate* (IMR).** [2 marks]

Infant mortality rate (IMR) is the number of infant deaths (before their first or fifth birthday: definitions vary) [1 mark] per live births [1 mark].

- (b) **Describe *two* relationships shown on the diagram.** [2+2 marks]

For each relationship allow [1 mark] for description of the relationship and a further [1 mark] for quantification or identification of anomalies.

Valid relationships could include:

- As GNP *per capita* increases, infant mortality rates (IMR) decrease.
- As GNP *per capita* increases, the difference between infant mortality rates (IMR) in rural and urban areas decreases.
- As GNP *per capita* increases the highest IMR within a country changes from rural to urban.

Other valid relationships should also be credited.

- (c) **Explain how *three* factors, other than income and residence, may affect the infant mortality rate.** [3+3+3 marks]

Factors may include age of mother, birth order, birth interval, sex of baby, educational level of mother, pre- and post-natal health, nutrition, infant immunization availability, water quality and government policy.

Candidate may categorise factors such as demographic, social, economic, political or environmental.

For each factor marks should be allocated as follows:

Identifying the factor [1 mark]. Full explanation of how the factor may influence infant mortality rate (IMR) [2 marks].

- (d) **Referring to specific examples, discuss the consequences of forced population movements at their destinations.** *[10 marks]*

Answers may include reference to a range of social, economic, demographic, political and environmental consequences. These consequences can be both positive and/or negative. The response can examine the consequences for the destination and/or for the migrants themselves when they reach that destination.

Consequences may include:

Social – overcrowding, spread of disease, discrimination and racial tension, pressure on school resources, cultural diversity, greater range of international cuisine.

Economic – pressure on jobs leading to unemployment, cheap pool of labour and lower costs for consumers. Greater demand on housing provision and thus possible shortage.

Demographic – changing population structure.

Political – rise of extremist parties.

Environmental – pressure on food and water resources.

Answers need not include all of the above, as responses will depend upon the examples chosen.

Well discussed responses that include examples are likely to be credited at band D or above and those that also **discuss** the consequences are likely to be credited at band E/F.

Any reference solely to voluntary migrations such as economic migration and counter-urbanization can be credited up to band D.

Given the complexity of this question responses may develop one example in detail as an acceptable approach.

Marks should be allocated according to the mark bands.

2. (a) **Referring to the map, describe the pattern of the number of girls per 100 boys who attend primary school.** [3 marks]

Using the key/legend, candidates should identify that the number of girls for every 100 boys in primary school is:

Lower in (LEDCs) Africa, Southern Asia and the Middle East [1 mark]

Higher in (MEDCs) North America, Europe, Australasia, North Asia [1 mark]

Quantification or identification of anomaly [1 mark]

Country names are not essential but may be used as map references.

Reference to North and South of the Brandt line is acceptable, but there needs to be specific reference to some valid regions to gain the marks.

- (b) **Explain two strengths and one weakness of this indicator as a measure of development.** [6 marks]

Responses should look at two developed strengths of this indicator (such as it gives an idea of female emancipation, gender equality, girls literacy, status of women, lower fertility rates, some understanding that education is a key factor in development) [2×2 marks].

One developed weakness of this indicator: it is not a composite index, it fails to address inequities within the country itself, it does not take into account the total number/percentage of children in primary school, fails to address other aspects of development such as income/political freedom/access to basic sanitation [2 marks].

Only [1 mark] should be awarded in each case if the strength or weakness is not developed.

- (c) **Analyse the relationship between level of development and the age structure of a population.** [6 marks]

Candidates may approach this question in a number of ways:

- Examine how age structure changes through demographic transition.
- Comparison of countries at different stages of development.
- How age structure impacts on development.

Responses should describe how the age structure varies, this can be done through annotated diagrams. Reference could be made to sex ratio, life expectancy, dependency ratio [3 marks]. Some explanation of how this structure is related to the level of development must be given. Descriptive reference to changing birth and death rates is insufficient for the next [3 marks].

- (d) Examine the variations in levels of economic development that exist within one named country.** *[10 marks]*

Answers could examine the economic variations that exist between the core and periphery within a named country. Responses may also interpret the demographic variations in economic development that exist within a named country between gender/ethnic/social groupings. One approach or a combination of approaches is equally acceptable.

Answers should focus on economic development and should go beyond mere description. Development in terms of either the reasons for the variations and/or the consequences of this variation is needed to access marks beyond band D.

Marks should be allocated according to the mark bands.

3. (a) **Referring to the graph, describe the regional pattern of poverty in 1990.** [4 marks]

Sub-Saharan Africa, Southern and Eastern Asia have the higher percentages of people living on less than \$1 a day [1 mark], South-Eastern Asia and Oceania, Latin America and the Caribbean have medium percentages [1 mark] and the rest of the developing regions have very low percentages [1 mark]. The remaining [1 mark] should be reserved for some quantification.

Some flexibility can be used in terms of the groupings however if the response makes no attempt to group the regions a maximum of [2 marks] can be awarded.

(b) **Identify one region where poverty has not yet fallen to meet the 2015 goal and suggest three reasons for its relatively slow progress.** [1+3 marks]

Sub-Saharan Africa, Southern Asia, Latin America and the Caribbean, Northern Africa and Western Asia, transition countries of Southern-Eastern Europe and CIS countries have still not met the 2015 goal. [1 mark] should be awarded for identifying any one of these regions. Reasons may be multiple depending on the region chosen. Responses are likely to refer to reasons such as lack of technology, reliance on primary products, growing populations, corruption, political instability, war and other conflicts and unemployment [3×1 mark]. If three valid reasons are just listed and not developed only [1 mark] of the three may be awarded.

(c) **With reference to areas at contrasting levels of development, explain the relationship between malnutrition and development.** [7 marks]

A large range of responses can be expected here. Allow [1 mark] for valid identification of two contrasting areas, which could be within the same country.

For regions of lower development, responses should refer to a relationship between hunger or **undernutrition** and development [1 mark] that can be due to such factors as lack of food distribution, dominance of cash crops and the consequent disruption of local markets, low productivity of subsistence agriculture and wars. Award [2 marks] for each well developed reason.

For regions of higher development, responses should refer to a relationship between **overnutrition** (obesity) and development [1 mark] mainly due to food availability and bad nutritional habits [2 marks].

It may be equally valid to look at how malnutrition can impact upon development of an area.

- (d) **With reference to examples at any scale, examine the changes in food production *per capita* over the past few decades.** **[10 marks]**

Food production *per capita* has increased in some regions but decreased in others. Reasons for a decrease include population growing more rapidly than food production. Production *per capita* may decrease because of a switch to cash crops or biofuel crops, loss of fertility (desertification/soil degradation/salinization), reduced area of arable land, rural–urban migration, lack of government investment or support.

Reasons for an increase include a population growing less rapidly than food production, increases in cultivated land area, increase of irrigation, changes in farming methods, government policy and technological innovations.

Depending on the examples described, responses can be awarded **[10 marks]** for examining **either** decreasing food production *per capita* **or** increasing production *per capita* or both.

Responses that offer developed examples are likely to be credited at band D and above. Marks should be allocated according to the markbands.
