International Baccalaureate®
Baccalauréat International
Bachillerato Internacional

MARKSCHEME

May 2010

GEOGRAPHY

Higher Level and Standard Level

Paper 1

Core Theme: Population, Resources and Development

1. (a) **Describe the population pyramid of the country in the year 2000.**   *[3 marks]*

The pyramid exhibits a broad base / youthful structure / broad base and narrow top *[1 mark]*. Tapering or concave shape / shows significant decline in numbers for each group *[1 mark]*. Some further observation or quantification is necessary for the award of the last *[1 mark]* such as gender, fewer 0 – 4 children, similar sizes for 0-19 groups (or some recent regression), identifies high (youthful) dependency ratio.

Do not credit references to BR and DR / life expectancy unless some descriptive link to the shape is also provided.

(b) **Suggest reasons for the gender imbalances in the population pyramid in the year 2025.**   *[6 marks]*

The strongest responses are likely to suggest several different reasons for gender imbalances. Males outnumber females in the child, youthful and working age groups. Possible reasons for the higher number of males in the 0 – 19 age groups include the number of male babies born (and female infanticide, although this is not common in Africa). For the working age population (20 – 65), the relative lack of females may be due to high rates of maternal mortality, perhaps worsened by poor nutrition; a disease (such as HIV/AIDS) causing higher mortality among females than males; and/or migration. In the age groups over 65 years, females outnumber males, partly because female life expectancy is usually higher than male life expectancy, and perhaps also because of the loss of males through war or migration during some earlier time period.

Answers should cover a minimum of two reasons / age groups. Mark according to range or depth but a maximum of *[4 marks]* if comments are not directly related to the 2025 pyramid.

(c) **Explain** *three* **economic impacts of a disease that you have studied.**   *[6 marks]*

The economic impacts involved will depend on the disease selected, but credit should only be given for economic impacts, not social or demographic impacts that are unrelated to economics. In the case of HIV/AIDS, possible impacts (among others) might range from loss of people in the working age groups, therefore increasing dependency ratios and reducing economic output; reduced productivity for sufferers, leading to a reduction in economic output; an increased burden on individual and family finances owing to the costs of medical care, pharmaceutical products and funerals; the early entry into the workforce of children orphaned by the disease. In each case, award *[2 marks]* for a distinct economic impact, provided it is well developed and explicitly economic.

Maximum *[3 marks]* for listed ideas that either lack development / are economically indistinct or do not have a named disease.

(d) **Examine the interrelationships between mortality rates and levels of development.** *[10 marks]*

Allow for a broad interpretation of development.

High mortality rates, especially infant and child mortality, often reflect low levels of development where the availability and quality of medical care is poor. Low rates of mortality are often considered a characteristic of more wealthy, economically developed societies, though many exceptions to the general trend exist. Responses that only consider the general effects of development on health and mortality rates (DTM) are unlikely to access bands E/F.

Good answers should examine the ways in which mortality rates influence the level of development as well as the ways in which they reflect them. They may examine alternative relationships such as MEDCs with an ageing population having higher mortality rates. They may examine different mortality rates *e.g.* IMR and maternal mortality. There are many other possible approaches and they should be assessed on their merits. For band F, candidates should explicitly examine the idea of an interrelationship (*e.g.* sees a reciprocal nature to the relationship).

Marks should be allocated according to the markbands.

2. **(a)** **(i)** **Describe the relationship between GDP *per capita* and total fertility rate shown on the graph.**   *[2 marks]*

There is a negative correlation *or* as GDP *per capita* increases the total fertility rate decreases *[1 mark]*. Award *[1 mark]* for some quantification or further observation (*e.g.* the fluctuating / uneven falls).

(ii) **Identify *one* country that does not follow the general relationship.**   *[1 mark]*

Zimbabwe *[1 mark]*. Accept other countries if they match the response to (i).

(b) **Explain *two* factors other than GDP *per capita* that can cause a change in total fertility rate.**   *[2+2 marks]*

Factors must relate to a change in TFR and could include ante- and pro-natalist policies, war, migration, empowerment of women, disease, falling infant mortality, education, shift away from subsistence farming, cost of children, change in religious attitudes *etc*. Any two should be clearly identified and explained, for example: increased female literacy rates *[1 mark]* lead to higher status of women and more control over family size *[1 mark]*.

(c) **Using a map, describe the main differences between the core and the periphery in a country of your choice.**   *[8 marks]*

The map should be an accurate and neat representation of one country's core and periphery with a clear title and labeling *[3 marks]*. The annotations or text must highlight the differences between the core and periphery in terms of demographic characteristics (including migration flows), physical attributes, levels of urbanization, economic activity, services and infrastructure, political power and investment. Award up to *[5 marks]* for the differences or contrasts offered (credit either range or depth of description).
Answers that address a city/city region could gain limited credit for valid differences that feature in core periphery theory.
A maximum of *[5 marks]* can be awarded if no map is included.

(d) **"GDP *per capita* is the best indicator of a country's level of development." Discuss this statement.**   *[10 marks]*

The usefulness of GDP *per capita* should be evaluated within a broad context of development (GDP per capita = total value of goods and services produced within a country's borders divided by population size). This may be achieved by recognising the weakness of total GDP as an indicator (because it is independent of population size); or by contrasting with GNP per capita; or candidates will recognize that development is a multi-faceted concept, including quality of life (answers may compare GDP with composite indices such as the Human Development Index).

More generally, there are several strengths of GDP per capita which may be addressed, including: allows for comparisons to be made, it is a part-component of HDI, it is a guide to social development (indicates likely spending on health and education). Likely weaknesses to focus on could include: lack of indication of other aspects of social development including political freedom, equality or environmental sustainability; or data accuracy issues.

Answers that do not look at both the strengths and weaknesses of GDP per capita and do not discuss alternative indicators are unlikely to access bands E/F.

Marks should be allocated according to the markbands.

3. **(a)** **Describe the pattern of under-nutrition in children under five years old in Asia.** *[4 marks]*

Child under-nutrition is highest in South-West Asia (India, Pakistan, Cambodia, Bangladesh; the names of the countries are not essential) *[1 mark]*

Child under-nutrition is lowest in surrounding areas (China, central Asia and the Middle East) *[1 mark]*. Award the final *[2 marks]* for quantification and / or any other valid description (*e.g.* uneven) and /or for identifying an anomaly.

Max *[2 marks]* for list of countries but with no overview of pattern.

(b) **Briefly describe the difference between malnutrition and under-nutrition.** *[3 marks]*

Under-nutrition is defined as shortage of food / insufficient calorie intake and/or protein intake (*i.e.* refers to quantity) *[1 mark]*. Malnutrition is an imbalance of food such as vitamins, fats carbohydrates, *etc*. (*i.e.* refers to quality or deficiency) *[1 mark]*.
Award *[1 mark]* for any further development such as MEDC malnutrition (*e.g.* obesity) / LEDC under-nutrition (protein deficiency).

(c) **Using examples, explain why food aid does not always alleviate hunger.** *[8 marks]*

Responses would be expected to consider the success that food aid has had in relieving hunger in some named recipient country/countries. Food aid helps as an emergency short term response for the immediate alleviation of hunger, decreasing mortality and controlling disease. Food aid can, however, have many detrimental effects such as lowering food production in the receiving country, causing increased dependency; being used as a political tool by internal or external forces, increasing levels of corruption; going to only a select few and depressing local food prices.
A broad interpretation of food aid is acceptable (including, for example "food for work" programmes, emergency aid, tied aid, bilateral aid). Hunger can also be analysed in a variety of ways (*e.g.* short-term / long-term).
Expect at least two examples – either of types of aid or different countries / regions.
Award *[2 marks]* for a developed example/s and up to *[6 marks]* for the depth and detail of explanation.

(d) "**The carrying capacity of countries can be increased or decreased by people.**" **Discuss this statement.** *[10 marks]*

Carrying capacity should be explained as the maximum number of people the environment can support at a particular level of development. Technology can be used to increase carrying capacity, while unsustainable activities such as over-grazing and other forms of population pressure may reduce it (temporarily or permanently) / countries-in-need can also exploit resources belonging to other places, or engage in trade ("appropriated" carrying capacity). Likely exemplification might include the Green Revolution or GM crops. The discussion can be based around the views of Malthus/Club of Rome (carrying capacity overshoot and resource exhaustion) and those of Boserup but this approach needs to refer back to the question for higher bands (so comments must be linked with idea of carrying capacity changes). To access bands E/F, both sides of the discussion should be addressed, but they need not be treated in equal depth.

Marks should be allocated according to the markbands.