



MARKSCHEME

November 2000

GEOGRAPHY

Higher and Standard Level

Paper 2

Notes to Examiners

Examiners should note that where some part-questions are worth 10 marks, a banding of marks has been adopted. These bands are a guide intended to assist the marking process. Candidates' answers may not fit precisely the description given and mark allocation is left to the examiner's discretion.

Notes on individual questions

Question 1:

The diagram shows the Gross National Product (GNP) per capita and the percentage of population aged over 65 years for selected countries in 1995.

- (a) With reference to the graph, describe and explain the relationship that exists between GNP per capita and the percentage of population aged over 65 years.**

[6 marks]

Candidates should identify a positive relationship between GNP per capita and percentage of the population aged over 65. For full marks the candidate should refer to specific countries on the graph and pick out any anomalies, e.g. Argentina, Switzerland and Japan. In addition, there should be a full explanation of the relationship between levels of economic development and life expectancy. There may be some imbalance, but the answer should consist of both description and explanation.

- (b) Suggest *two* other measures of population which have the same type of relationship with GNP per capita as that shown on the graph.**

[2 marks]

Population doubling time, life expectancy, population doubling time are all possibilities. The answer should include only demographic measures but some discretion can be applied.

- (c) (i) With reference to *one* country which you have studied, explain the circumstances that have led to an ageing population structure.**

[6 marks]

There are two principal factors here; declining fertility and increasing life expectancy. For **[6 marks]** candidates should deal with both of these factors and show an understanding of the changes in population structure over time for one named country.

- (ii) Describe the social and economic provision that governments in general must make for this type of structure.**

[6 marks]

Candidates should describe at least four socio/economic government provisions for **[6 marks]**. The list is extensive, but should include: pensions, health care, housing, social services, leisure activities.

Question 2:

The diagram shows different types of migration and migration flows.

- (a) With reference to examples, distinguish between forced and voluntary migrations.**

[4 marks]

Forced migrations arise as people may be driven out or compelled to leave. Push factors include religious and racial persecution, famine and natural disasters.

Voluntary migrations usually involve an element of choice involved in migration but economic factors are usually important where migrants are searching for a better standard of living. For full marks there should be an example for each definition.

- (b) Discuss the way that barriers may operate with both voluntary and return migrations.**

[4 marks]

Barriers to voluntary migrations might include physical distance, cost of the journey, and family kinship ties at home.

There may also be institutional barriers such as immigration laws, strict border controls, and detention. Other barriers to return might include racial, political or environmental problems at home.

There should be a full discussion of at least 4 barriers with some reference to examples for full marks. A maximum of only **[2 marks]** should be given for a list.

continued...

Question 2 continued

(c) **With reference to a variety of examples, discuss the demographic, economic and social consequences of migration for countries which are:**

- (i) **area of destination**
(ii) **area of origin.**

[6 marks]
[6 marks]

(i) Consequences of migration in the area of destination:

- Demographic: an increase in the population can lead to an increase in the reproductive sector of the population although this may not be true in the case of highly skilled and educated immigrants.
- Social: culturally distinct areas and at worst, ghettos, can be created, all of which can strain social services and infrastructures.
- Economic: in moderation, the influx of immigrants can provide a valuable labour source, but large numbers may cause unemployment.

(ii) Consequences of migration in the area of origin:

- Demographic: population pressure may be relieved, although in EMDCs, it may lead to an ageing population.
- Social: traditional social structures and attitudes can be weakened as migrants return with new ideas, which may also lead to the break up of communities.
- Economic: reduction in numbers may relieve population pressures and unemployment, but the loss of an able-bodied, younger sector could lead to a reduction in productivity; in EMDCs the loss of an educated and skilled population may lead to a loss of outside investment.

In the case of both parts (i) and (ii) the answers should include the following to gain full marks. **[6 + 6 marks]**

- (a) A balanced and accurate discussion of the three factors (demographic, social and economic).
- (b) Consideration of both negative and positive effects of migration at both source and destination.
- (c) Reference to examples selected from both ELDCs and EMDCs.

Question 3:

The map shows the global pattern of major natural disasters in the twentieth century.

- (a) **Distinguish between the terms – *natural hazard* and *natural disaster*.** [2 marks]

A natural hazard represents a natural event which threatens life and property. A natural disaster is the realisation of the hazard and involves serious losses (or words to that effect). [1 mark] for each definition.

- (b) **With reference to the map, select *two* natural hazards which occur in areas where there are more than 100 major disasters. State what these two hazards are and why they occur.** [10 marks]

The answer should focus upon Asia and correctly identify two different natural hazards there.

[8-10 marks] – A detailed discussion of the physical causes and processes involved with the two natural hazards in the specified area. At least one labelled diagram should support the answer.

[4-7 marks] – Correct identification of two natural hazards in this area. Some accurate knowledge of processes involved, but discussion is thin and diagrams missing or very generalised.

[1-3 marks] – Only one natural hazard identified correctly. Scant knowledge of processes.

- (c) **Select *one* natural hazard which you have studied and discuss the ways in which humans respond to this hazard.** [8 marks]

People threatened by a natural hazard may choose to modify the event itself by control, prevention and protection. They may reduce vulnerability by prediction warning and land-use zoning. They may reduce the losses by aid or insurance or may accept the losses as an act of God. For a full [8 marks] candidates need to discuss at least five of these responses and there should be some reference to one or more examples. Allow a maximum of [5 marks] for answers that refer only to emergency short term response to one specific hazard event.

Question 4:

The diagram illustrates the process of urban expansion *or* sprawl that is found in Economically More Developed Countries (EMDCs).

- (a) **Explain why many large towns and cities in EMDCs have expanded in this way in recent years.** *[8 marks]*

In EMDCs the processes of urbanisation and industrialisation are largely complete and in some cases the urban population is in decline. However changing social patterns require expansion in the built-up area. These social changes include:

- A growing number of small households.
- People with increasing life expectancy.
- Increased fragmentation of families through divorce.
- Higher incomes leading to a desire for larger houses and more space.
- Modern industry and out-of-town retailing requiring more and cheaper land.
- Transport developments such as airports and roads requiring more space leading to growth corridors.
- Greenfield sites often being cheaper than brownfield sites.

For *[8 marks]*, at least four of the above factors should be mentioned.

- (b) **With reference to this diagram, describe and explain the environmental and social conflicts that may arise on the rural-urban fringe.** *[8 marks]*

The rural-urban fringe should be correctly identified at the edge of the urban area. *[1 mark]*.

Environmental conflicts might include:

- Air pollution from power stations, incinerators, quarries and motorways.
- Noise pollution from traffic and airports.
- Conflict of interests – those of the developers with the interests of nature conservationists, farmers and local people.
- Social conflicts may arise between the original rural inhabitants and wealthy newcomers.

For full marks at least six conflicts should be identified from the diagram and they should cover both environmental and social, although there may be imbalance.

- (c) **Discuss the action that may be taken by governments in EMDCs to contain urban sprawl.** *[4 marks]*

Greenbelts around large towns and cities are designed to contain the sprawl by restricting developments to those associated with leisure and by encouraging the development of inner urban brownfield sites. New towns may also reduce urban expansion, but might shift the problem elsewhere. For full marks at least one example should be mentioned.

Question 5:

The table shows the changes in the percentage of economically active population employed in agriculture for selected countries in the world.

(a) With reference to the table, describe the changes in agricultural employment between 1970 and 1995 for.

- (i) Economically Less Developed Countries (ELDCs). [2 marks]**
- (ii) Economically More Developed Countries (EMDCs). [2 marks]**

- (i) ELDCs – High levels of employment have been maintained in some countries *e.g.* Nepal and Rwanda. [1 mark]. In others there has been a decline to moderate levels *e.g.* Indonesia and Bangladesh. [1 mark].
- (ii) EMDCs – Levels in 1970 were less than 20% and in some cases lower [1 mark]. The decline has been less dramatic [1 mark].

(b) Suggest reasons for the decline in agricultural employment for any one country which you have studied. [6 marks]

Push factors such as mechanisation, unemployment and land consolidation are key factors. Pull factors might be industrialisation, improved transport, better social and economic conditions in cities. A maximum [3 marks] only should be awarded if convincing knowledge of one country is missing.

(c) Explain why it is almost always countries with high percentages of their populations employed in agriculture that suffer from food shortages. [10 marks]

High levels of employment in agriculture are often associated with lack of economic development and low agricultural productivity. Technological improvements associated with the Green Revolution such as HYVs and mechanisation coupled with land consolidation are likely to reduce agricultural employment and increase food production. For this general explanation candidates would receive [6 marks]. The best candidates will give at least one example and may identify exceptions such as the rice-growing areas of S.E. Asia where agricultural employment and productivity are high, but food supplies adequate [4 additional marks].

Question 6:

**The map shows the global pattern for the Human Development Index (HDI).
The index has three basic components:**

**Life expectancy,
Adult literacy and the average number of years of schooling,
Purchasing power adjusted to local cost of living.**

- (a) Justify the choice of these three components as measures of development. [6 marks]**

The choice of life expectancy, adult literacy and purchasing power can be justified in terms of indicating social welfare and the potential for economic development that is through education. For full marks candidates need to indicate that social welfare depends itself upon economic strength.

- (b) Choose *three* other measures of development and state *one* advantage and *one* disadvantage of each. [6 marks]**

The three chosen must be quantifiable, such as people per doctor, percentage of urban population and percentage employed in agriculture. In each case one advantage and one disadvantage should be identified for the full [6 marks].

- (c) Select *one* country with an index greater than 0.9 and discuss the forces that have led to its high level of development. [8 marks]**

Candidates should be given only [4 marks] if the country selected does not have an index of 0.9. Thereafter credit should be given for valid discussion. The forces identified should be both internal, such as availability of natural resources, environmental quality and accessibility, and external such as trade, and cultural contact. A discussion emphasising either external or internal is acceptable. For full marks the discussion should be factual and convincing.
