

**UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS**

**GCE Advanced Subsidiary Level and GCE Advanced Level**

**MARK SCHEME for the May/June 2007 question paper**

**9696 GEOGRAPHY**

**9696/03**

Paper 3 (Human Options), maximum raw mark 50

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All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

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### Production, location and change

1 (a) Fig. 1 shows how Oxfam’s cow loan scheme may help farmers in Malawi, an LEDC in southern Africa. Oxfam is an international charity working to overcome poverty. With the help of Fig. 1:

(i) identify two inputs of the agricultural system practised by these farmers apart from the cow;

Credit 1 any two of land, labour, capital, seeds, rain/sun, other [2]

(ii) describe and explain one way in which production in this agricultural system may be intensified;

two possible approaches, relating to,

- the cow e.g. buying feed, controlling grazing, dipping, vet care
- the crops e.g. changing from subsistence to some sale, introducing new crops, buying inorganic fertilisers or pesticides, water supply for droughts

Mark on merit, for instance, an additional cow does not necessarily mean intensification. The explanation should touch **intensified** clearly. [3]

(iii) explain the ways in which hazards may affect the agricultural production.

**hazards** include climatic, pests and diseases and, perhaps, political instability, although personal misfortune should not be credited. Credit well a response which indicates how production may be disrupted e.g. breaking the positive feedback loop or engendering indebtedness. The response is likely to be made in negative terms but some positives are creditable e.g. if floods hit other areas of Malawi, prices at market rise for milk and calves. [5]

(b) To what extent do you agree that ensuring a sufficient supply of labour is a challenge for many farmers? Support your answer with examples.

An opportunity to integrate the Human Core, Population change, with this Option, if recognised, through such issues as labour migration, falling BR and the impact of AIDS on population structures. It is also, of course, valid to take an explicitly ‘agricultural’ approach and to consider quantity of labour, quality, skills, seasonal demands, wage levels, mechanisation, the local labour market, family labour etc.

Whilst other factors may also be challenging the question’s primary focus is labour.

#### Candidates will probably:

L3 Provide a well-organised and perceptive assessment of different aspects of the adequacy of labour supply. Give good support for their argument, using detailed examples. Appreciate a diversity of possible outcomes. [12–15]

L2 Develop a response of sound to good quality, but which remains partial and/or limited through restricted knowledge basis, conceptual understanding (perhaps only dealing with quantity of labour) or moderate assessment. Offer modest exemplar content, maybe from one context. [7–11]

L1 Make an answer which is descriptive with little or no assessment content. Offer some basic observations about labour, maybe in a general agricultural context or from a simple example. Fragments and notes remain in L1. [0–6]

[Total: 25]

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- 2 (a) With the help of examples from manufacturing and related service industry, explain the term *functional linkages*. Under what circumstances may existing linkages end?

Flexibility of marking retained to allow candidates to use their material. Indicators of quality are likely to be the detail and use of **examples** and the teasing out of **circumstances** using their understanding.

**functional linkages** are the relationships or links between one industry and another. They take a number of forms:

- forward to the industry that consumes the industrial product
- backward to the industry that provides the raw material/component
- vertical a raw material goes through several successive processes
- horizontal an industry relies on several/many others for supplies
- diagonal an industry makes something which can be used in several linked industries  
e.g. screws

A broader view of linkages includes many services such as finance, sub-contracting, maintenance, advertising, packaging, transport etc.

**circumstances** are many and various e.g. closures and liquidation; end of contract; a more competitive quote/better margin; problems such as delays or quality of work; relocations; loss of confidence; corruption; instability etc. Suggest credit well an account which is perceptive about industrial realities and gives a sense of the dynamic and interactive nature of doing business.

Mark the two elements flexibly, to candidate's benefit, to **2/8** and **8/2** [10]

- (b) Assess the ways in which government policy has influenced the character and location of manufacturing industry within one country you have studied.

A straightforward invitation to use the case study of industrial change. Clearly much will depend on the example but **the ways** could be diverse, e.g. investing in an industrial estate or education and skills training or transport systems. Note that it is both **character** (although this may be broad, e.g. light, small-scale, hi-tech) and **location** which could be considering the whole country or include local material.

**Candidates will probably:**

- L3 Provide a strong response which integrates content and assessment throughout. Demonstrate detailed knowledge of government policy in the chosen country. Show understanding of both industrial character and location in a reasonably balanced manner. [12–15]
- L2 Make a suitable answer which is sound to good quality, but which may be unbalanced character/location or limited in appreciation of government policy or country detail. Offer an assessment of 'so far so good' quality. [7–11]
- L1 Offer a response which is descriptive, making little or no assessment. Show knowledge of the country's manufacturing industry which remains basic and understanding of government policy which may be general or even faulty. [0–6]

[Total: 25]

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## Environmental management

### 3 (a) Outline some of the arguments for and against hydro-electric power (HEP) as a source of energy.

**arguments for** include that it is renewable; sustainable and non-pollutative. Installations have a long lifetime; may be multi-purpose; are flexible in power generation; have massive potential capacity. HEP may also be small-scale e.g. Nepal, or a prestige project attracting foreign aid or investment.

**arguments against** include costs; maintenance issues e.g. need for capital/skills/technology or silting up; high environmental impact through flooding agricultural land, spoiling scenic areas or displacing population; problematic to deliver on time, on budget etc. Siting requirements make it unusable in many locations.

Suggest credit **5/5** with flexibility to **6/4** and **4/6** depending on weight given. [10]

### (b) With reference to one country, in what ways could its energy strategy be said to have failed?

In the case study of one country's energy strategy, evaluating success is one major element. It is highly unlikely that candidates will have been taught or learned material in a way that makes the strategy an unqualified success. Credit well responses which accept degrees of failure, qualify failure or which identify which group(s) of people it failed. Some may recognise that environmentalists view failure differently from politicians etc. and should be credited for this understanding.

Any type(s) of failure can be accepted: physical or environmental, social, economic or political. Better answers may balance present reality with future concerns.

#### Candidates will probably:

L3 Present a mature and perceptive analysis of failure, which is comparative or relative, perhaps identifying differences between groups of people or locations within the chosen country. Demonstrate high level knowledge and understanding of energy issues and the energy strategy and/or impress by their approach and perspective. [12–15]

L2 Have sound to good knowledge of the chosen energy strategy and reasonable understanding of energy issues. Provide an account of failure which is satisfactory to good but which may be limited in scope or detail, somewhat unconvincing or "blanket" in its judgements. For an account of one energy source, where the energy strategy is mixed, **max.10** [7–11]

L1 Make a basic response of a largely descriptive character. Offer one or two observations of failure (or success) which may not be substantiated much. Responses at an inappropriate scale (not national), with faulty understanding of energy issues and strategy or in note or point form remain in this level. [0–6]

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- 4 (a) Fig. 2A shows the impacts of reduced flows in the River Ganges below the Farakka Barrage. Fig. 2B locates the Ganges river system.

**Using Fig. 2A, describe and explain the environmental impacts of reduced flows in the Ganges.** [Fig. from a Bangladesh Govt. White Paper on the dispute]

Success here depends on firstly, extracting **environmental** impacts from Fig. 2A (not economic or social ones). Irrelevance is not penalised but will take time and not contribute to answer quality. Secondly, on how well the candidate can **explain the ... impacts** using wider knowledge and understanding. Weaker candidates will do little more than rewrite the labels in the boxes. A full answer should describe and explain **impacts** in three environments, of which the first is the most detailed on Fig. 2A,

- *cropping environment* (agriculture) affected by increased water salinity impacting groundwater (crops), surface water (irrigation) and soil moisture: reduced output, hard pans or crusts, change in soil pH, desiccation, potential for soil erosion etc.
- *forest environment* salinity-sensitive trees change in foliage colour, loss of foliage, death of trees, loss of forest cover, implications for ecosystem and wildlife etc.
- *aquatic environment* as fish habitat is affected: change in water pH, disruption to food chain and ecological balance, death and reduced numbers of fish etc.

**Suggest ways in which these impacts may be monitored.** (reserve 2)

Credit any reasonable suggestions e.g. internal or external body; in time and space; observation and instruments; locally and nationally; using a specific e.g.; other.

Retain overall flexibility of marking, but note the reserve. [10]

- (b) **Assess the extent to which political factors have contributed to the success (or failure) of attempts to upgrade one degraded environment you have studied.**

Straightforward opportunity to use an example in a directed manner, allowing for the assessment to be totally case-specific. The **political factors** may be 'positive' e.g. funding, policy, will, initiative or 'negative' e.g. bureaucracy, corruption, other priorities, instability, and will vary greatly in importance. An 'other factors' response is clearly legitimate. Any **degraded environment** is acceptable, rural or urban.

**Candidates will probably:**

- L3 Provide an effective assessment of political and other factors, selecting material and organising the response very well. Show detailed knowledge of the chosen environment, good conceptual understanding of degradation and demonstrate high level skills of evaluation. [12–15]
- L2 Make a response of sound to good quality. Show firm knowledge of the degraded environment, which may lack detail, and/or suitable but limited understanding of the role of political and other factors. Offer a moderate assessment, either in depth or in development. [7–11]
- L1 Describe the degraded environment in quite a general way, with some irrelevance. Have difficulty identifying political factors meaningfully and offer little or no assessment. Fragments and notes remain in L1. [0–6]

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## Global interdependence

- 5 (a) Fig. 3A shows the structure of trade conducted through the Republic of Ireland's ports in 1983 and 2002. Ireland is an MEDC and a member of the European Union. Its location is shown in Fig. 3B.

### How could the dominance of three ports in Ireland's trade be explained?

It would be surprising if all ports shown took an equal share, but it is the explanatory factors which are creditable. No knowledge of Ireland is expected so candidates will be working from understanding and developing their own explanation. It is likely that a combination of factors will be taken, perhaps, internal e.g. site; coast; accessibility by land; planning; and external e.g. EU investment; technological change, or,

- physical e.g. deepwater harbour; availability of building land; relief
- social e.g. skilled labour; port history/inertia; reputation
- economic e.g. profits reinvested; EU support; economies of scale;
- political e.g. local policy; national policy; EU policy

It is highly creditable to use Fig. 3A, e.g. observing that the **three** specialise to an extent: Dublin (general cargo), Shannon Estuary (dry bulk), Cork (liquid bulk).

Some reasons for the limited contribution of the other ports are useful: physical e.g. shallowness, remoteness; social e.g. low population density; economic e.g. small market hinterland, lack of modern technology; political e.g. protection of heritage coast or influence/power of the big three.

Suggest mark as a whole, bearing in mind as a guide levels **0-4, 5-7 and 8-10**. [10]

- (b) To what extent do you agree that a country's trade is determined by factors which are beyond its control? Support your answer with examples.

Whilst countries are neither all-powerful or simply victims, any position may be taken if supported. Candidates may identify what a country can control, although this may be limited, and what it can't (much, at all, often?), for instance,

- physical: the weather; hazards; resource endowment; location
- social: labour issues; fashions e.g. in tourism (invisible)
- economic: world markets; competition; recessions; booms; tariffs; TNCs
- political: trading blocs; WTO agreements; wars; terrorism

### Candidates will probably:

L3 Make an effective assessment which makes global interdependence clear and recognises elements that may and may not be controlled. Develop a response in several dimensions, using diverse examples well. [12–15]

L2 Provide an answer which is sound and may be good in parts, but which remains partial through limited knowledge and/or use of examples, moderate understanding of trade and/or restricted assessment. [7–11]

L1 Give a basic thin response, descriptive in character and perhaps faulty in argument or understanding of trade. May be over-catastrophic in direction. Support points simply and/or use general examples. [0–6]

[Total: 25]

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6 (a) Table 1 gives the results of a survey of the residents of Cat Ba Island, Vietnam, about the impacts of tourism they have experienced. Vietnam is an LEDC in Asia. Fig. 4 shows the location of Cat Ba Island.

(i) In the experience of residents, how true is it that the impacts of tourism in Cat Ba have been mixed? Give data from Table 1 to support your answer.

Very true. There are five categories of impact, and no aspect was 'Much worse'. Beyond that an assessment should bring out aspects of similarity, e.g. amongst the economic impacts, and of diversity, e.g. comparing economic and environmental or within the social impacts e.g. comparing roads/transport; with water, power and traditional life/customs, with data support from Table 1. A full answer refers to all three dimensions of impact: economic, social and environmental. [5]

(ii) Suggest reasons for the variety of residents' responses to this survey.

Diversity of responses may result from an understanding of,  
 – background factors e.g. as age, gender, location, socio-economic status, level of education, other  
 – the nature of surveys and how they gather information e.g. perception, direct/indirect experience, mood, fear of responding honestly, other  
 A full answer covers **reasons** from both areas but not necessarily in a balanced way, credit **3/2** or **2/3** to **4/1** and **1/4**. [5]

(b) With the help of examples, explain some of the circumstances in which tourism may have positive environmental impacts.

The positive is ideally more than just the absence of the negative or damage but this may be the main thrust of a response, especially in relation to eco-tourism: its sustainability, preservation of wildlife, conservation, environmental education etc.

The more able may recognise a number of other possible circumstances e.g. environmental protection; use of revenues from tourism to enhance and manage environments; conservation of heritage e.g. ancient sites, old buildings, urban heritage, industrial sites for visits. There may be local examples of positives e.g. coastal management and upgrading, land reclamation, tree planting, water supply schemes and general 'beautification' which enhances a location.

**Candidates will probably:**

L3 Offer a perceptive, relevant and well-organised account of several circumstances in which tourism has positive environmental impacts, both the clearly positive and the absence of the negative. Use detailed examples and show high level understanding of management issues. [12–15]

L2 Provide a sound explanation, which may be good in parts or have one particularly well-explained and developed circumstance/example. Show some, but limited, knowledge and understanding or have more ideas than examples to support them. [7–11]

L1 Find the idea of environmental positives challenging to identify and explain. Cover one circumstance simply (eco-tourism?) or offer a few basic points, with little or general exemplar support. Stray into irrelevance. [0–6]

**[Total: 25]**

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7 (a) Explain the ways in which the primary sector of the economy may be important to LEDCs.

**primary sector:** whilst agriculture may dominate responses understandably, some reference to mining and extraction, forestry, perhaps fishing also, for a full response. There are a number of **ways**, including,

- high % employment
- significant % national income e.g. cash crops, oil revenues
- food production and the means of subsistence
- raw materials for processing, manufacturing and export
- fundamental to economies of rural areas
- means of development
- other

Some candidates may be aware of the Clark Fisher model and the relative contribution of the primary sector. Better responses may make the diversity of LEDCs (including NICs) clear, consider change over time or contrast urban/rural. [10]

(b) To what extent do you agree that a country should not expect endless development?

Most candidates will appreciate that development is a continuum along which countries move and transition at various rates and over differing time scales, e.g. by considering HDI scores, as they approach the 'perfect' or 'full' score of 1.

Development occurs in four dimensions: social, economic, political, environmental. Progress is not consistent across the four, economic development usually occurs first, social and political follow more slowly and variably, e.g. for women, minorities, with environmental development such as sustainability, usually fourth and often neglected in pursuit of economic goals.

Candidates may consider the world's most developed countries such as the USA or Japan and their development e.g. into service economies, the quaternary sector, with an ageing population. Governments may always have goals, policies or plans e.g. to reduce socio-economic disparities, increase wellbeing. Obstacles e.g. AIDS, hazards, instability, disasters, may put development "back" at least locally and for a time. Global interdependence, MEDC/LEDC, may become clear in better answers.

**Candidates will probably:**

L3 Demonstrate a broad appreciation of development in several dimensions and a 'big picture' perspective on associated issues and time scale. Use a range of examples to support the argument, which, whilst not full, impresses by the quality and content of the assessment made. [12–15]

L2 Produce a satisfactory to good answer. Make some strong conceptual points or offer some good examples in an otherwise moderate piece, or lack development giving a 'so far so good' quality. Recognise more than one dimension although the economic may dominate. Make a suitable or partial assessment, which may lack a clear 'line'. [7–11]

L1 Struggle to deal with the issue at anything more than a basic level. Make a few simple points about development, which maybe general, just economic or perhaps based on one example. Offer fragments or notes. [0–6]

**[Total: 25]**



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8 Fig. 5 shows the size of world regions in 2004, according to their gross domestic product (GDP) adjusted for purchasing power parity (PPP).

(a) Assess the usefulness of:

(i) GDP adjusted for PPP for measuring inequality;

**GDP** is the total value of goods and services produced by a country in a year. Good basis, but narrow e.g. excludes foreign income, other aspects matter such as national debt, per person, social inequalities, HDI scores etc. GDP works best for market economies, less well where subsistence and the informal sector are large. There may also be problems of data collection and accuracy.

**PPP** is a welcome refinement to simple GDP attempting to take costs into account: purchasing power is what can be bought and parity is an equal basis for comparison (imperfect as it doubtless is). Recognises that some currencies are weaker, that costs vary and tries to compare real cost of living between countries. e.g. China GDP US\$ 1400 but adjusted for PPP US\$6200 (more than four times greater). Japan GDP US\$37,600 but lowered when adjusted by PPP to US\$ 31,400.

for GDP only **max. 4**, for GDP with PPP if done well **max. 6**

(ii) the mapping technique used to display this information in Fig. 5.

strengths: e.g. highly visual, strong impression, regional division telling, other limitations e.g. loss of original data, lack of a scale, countries in world regions not given, hard to judge areas well by eye, other Suggest credit each **2** or **3**

Mark (i) and (ii) **4-6 6-4** flexibly as appropriate for emphasis and understanding. [10]

(b) How may global economic inequalities be explained? Support your answer with examples from different world regions.

Straightforward invitation to introduce and explain development at the world scale. Candidates should refer to MEDCs and LEDCs and may differentiate within group e.g. NICs, STICs, the “4th world” or using other terms. Approaches will vary but may benefit from coverage of economic sectors: primary, secondary, tertiary, quaternary; historical time scale/length of development, resources, globalisation, trade, aid etc.

**Candidates will probably:**

L3 Provide an effective explanation of the fundamentals of global economic inequality, which whilst not comprehensive, impresses by its ‘big picture’ perspective and conceptual background. Use diverse examples to show inequalities between and within country groupings. [12–15]

L2 Make a response which is sound overall and may be good in parts. Have modest knowledge of apposite examples and/or limited understanding such that the explanation offered has a ‘so far so good’ quality. [7–11]

L1 Offer a few basic explanatory comments or describe inequality, perhaps by recall of example(s) without (much) comment. Make a simple response, which at the lower end it may be fragmentary or faulty, and at the upper end is just adequate. [0–6]

**[Total: 25]**