#### **UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS**

GCE Advanced/Advanced Subsidiary Level

#### MARK SCHEME for the May/June 2006 question paper

#### 9696 GEOGRAPHY

9696/03

Paper 3

Maximum raw mark 50

This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which Examiners were initially instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began. Any substantial changes to the mark scheme that arose from these discussions will be recorded in the published *Report on the Examination*.

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.

Mark schemes must be read in conjunction with the question papers and the Report on the Examination.

The minimum marks in these components needed for various grades were previously published with these mark schemes, but are now instead included in the Report on the Examination for this session.

• CIE will not enter into discussion or correspondence in connection with these mark schemes.

CIE is publishing the mark schemes for the May/June 2006 question papers for most IGCSE and GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

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#### Production, location and change

- 1 (a) Figs 1A and 1B show the location of dairy factories in New Zealand, a MEDC in Oceania, in 1971 and 2001. Table 1 shows changes in the number of dairy factories between 1971 and 2001. The dairy industry processes milk and produces butter, cheese and other milk products.
  - (i) Describe the changes shown in the number and location of New Zealand dairy factories between 1971 and 2001.

**number** massive reduction of 81 factories, more in North Island than South Island (but similar proportion of 75%) (2)

**location** thinning out of distribution, loss of almost all clusters, some new openings by 2001 e.g. northernmost on South Island, fewer inland more coastal by 2001 etc (3) **[5** 

(ii) Suggest reasons for the changes you described in (i).

the context is *profitability* of enterprise, so closure, amalgamation, new sites are all in pursuit of higher profits, greater margins, economies of scale, reduced transport costs, larger market share, better market access (may recognise export-orientation) etc.

other factors include business failure, mergers and takeovers, outdated plant, behavioural factors (e.g. death in a family business), quicker more efficient transport meaning fewer "local" dairy factories, the role of inertia etc.

May recognise rationalisation/concentration and that there is no information on scale/production (fewer larger factories). [5]

(b) To what extent do you agree that distance from markets is no longer relevant to the location of agriculture? Support your answer with examples.

The phrase **distance from markets** is a syllabus term. Candidates should understand the issue of perishability (Caribbean bananas, Kenyan horticulture for UK supermarkets, other dairying etc.) but Von Thünen is no longer studied, just its 'conceptual basis'.

**no longer relevant** is purposefully overstated to make assessment more productive. Answers may take a number of positions, depending on the examples.

Major issues are transport, the location of markets (local, regional, national, global?), and food preservation technologies. Issues of supply and demand, costs and spoilage may arise as may the subsistence nature of agricultural production in many parts of the world (own consumption, no markets or sale or exchange of surplus).

Candidates will probably:

- L3 Structure their whole answer as an assessment, both supporting and challenging the statement, although not necessarily in a balanced way.
  - Demonstrate detailed knowledge of examples, good conceptual understanding and high order evaluative skills. [12-15]
- L2 Make a reasonable response, which, whilst showing some understanding of the issue of distance from markets, is limited by the range and/or detail of exemplar support or is partial in the assessment offered.

For a response based on one example max.10.

[7-11]

L1 Produce an answer which is descriptive rather than evaluative in nature and which may be general, having little or no exemplar content. Show limited or wrong understanding of distance from markets. Simply offer notes or fragments. [0-6]

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### 2 (a) With the help of examples, explain three factors which may affect the productivity of manufacturing industry (how efficiently output is produced from input).

**productivity**, as defined above, is commonly confused by candidates with production or simple output, although clearly these may have some relevance.

Any three factors are acceptable, these may include,

- availability of labour
- quality of labour e.g. skills, training
- motivation, work ethic
- labour disputes, strikes
- capitalisation
- level of mechanisation
- machine breakdowns, repairs, obsolescence
- quality of raw materials or components
- supply of raw materials or components
- energy supply
- political situation
- other

The detail of the examples offered may be an indicator of quality, better answers are likely to refer to actual named and/or located industries or events and may offer data support etc.

Suggest credit each factor up to 4 marks, within the maximum.

[10]

#### (b) Describe the character and assess the role of the export processing zones (EPZs).

The first appearance of EPZs on the June paper, there are several in the Caribbean. An EPZ is a designated/planned area established by the government, where foreign companies locate in order to import raw materials and components manufacture or assemble and then export finished products without paying tax.

Other characteristics may include:

- closed to other companies
- highly accessible
- good transport connection e.g. sea ports, airports
- good infrastructure e.g. assured power supply
- good security
- little environmental protection
- prestigious to government

The role is one of mutual benefit – companies bring industrial employment and all that flows by linkages and the multiplier effect into LEDCs and NICs, whilst gaining a competitive edge, greater profitability, proximity to new markets etc.

Candidates will probably:

- L3 Produce a perceptive account, showing good understanding of EPZs, both generally and in the case of one or more example. Structure the answer well balancing description and assessment suitably. Recognise and assess the role of EPZs both for the company or companies and for the host country or countries. [12-15]
- L2 Make a sound answer, having satisfactory to good knowledge and understanding of EPZs. Lack suitable exemplar content, balance description/assessment or much insight into EPZs' role such that the assessment is satisfactory but limited. [7-11]
- L1 Describe EPZs but offer little or no assessment of their role. Show either general understanding or knowledge of an example, but maybe not both. At the lower level demonstrate misconceptions or offer a fragmentary answer. [0-6]

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#### **Environmental management**

### 3 (a) (i) Fig. 2 shows the path of the radiation cloud produced by the nuclear accident at Chernobyl, in former USSR, in 1986. Describe the path of the radiation cloud.

A full answer covers both time, using the dates given and space, using one or more of compass points, land/sea, latitude/longitude and country names.

Discriminators may be the use of good descriptive terms, recognition of the UK loop on 2 and 7 May, observing the divergence/petering out. [5]

(ii) Outline the main arguments for nuclear power.

A number are possible, we are likely to see,

- ✓ produces massive amounts of energy from a small amount of resource
- √ does not emit greenhouse gases/contribute to global warming.
- √ has competitive running costs

and perhaps,

- ✓ ample availability of uranium globally cf fossil fuels
- √ has potential for countries lacking resources e.g. Japan
- ✓ politically desirable (defence, prestige, status etc.)
- ✓ other

Suggest credit points 1, 2 or 3 marks, such that a full answer may consist of two very well-developed points, or up to five single points.

# (b) Assess the potential risks associated with the production of energy from one energy resource except those used in nuclear power production.

Risk assessment is not in the syllabus explicitly but candidates seem good at identifying concerns, risks and hazards. A full answer should identify risks to people and environments (may involve earth, water, atmosphere and wildlife).

Any energy source – except the nuclear ones - is valid, although some, such as the sun, if chosen, may leave candidates with little to say, although a "low risk" assessment has validity. Note that it is energy rather than simply electricity (there is much potential in the oil industry, but *use* of energy should be excluded).

non-renewables coal, gas, oil

renewables sun (solar), water (HEP), wind, geothermal

Indicators of quality may be the example(s) used, an appreciation of spatial scale and time scale, differentiating risks under normal operation from catastrophe etc.

Candidates will probably:

- L3 Structure their whole response as an assessment and respond well to the demand, demonstrating good understanding of power production, good skills in risk assessment for both people and environments and the ability to use detailed and perhaps diverse examples. [12-15]
- L2 Produce an answer which shows sound knowledge, satisfactory to good understanding and a reasonable level of skills in assessment, but which remains limited in one or more ways. May focus on one aspect e.g. the greenhouse effect or on environments rather than people. [7-11]
- L1 Offer a few descriptive or generalised points, struggle to deal with the concept of risk assessment, lack the material or time to respond at more than a basic level. [0-6]

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# 4 (a) With the help of examples, explain how three different factors may contribute to the degradation of rural environments.

Any factors are acceptable,

- social e.g. traditional practices, population pressure, land tenure

- economic e.g. indebtedness, profit motivation, lack of investment

- environmental e.g. fragility of ecosystem, hazards

- political e.g. lack of will, other priorities, corruption, government initiatives

The three **factors** must be different but may be associated or from one dimension, although this is unlikely in better answers. It may be necessary to distinguish between factors (demand for fuelwood) and practices (deforestation) although this may be difficult.

The **examples** should be of rural environments and may be generic 'the tropical rain forest' or named and located.

Credit the three in combination, max. 4 for one factor, max. 8 for two.

[10]

# (b) How effective are measures taken to protect rural environments which are at risk? Support your answer from one or more rural environments.

Here **measures** may be interpreted widely to include more formal measures such as designating reserves, establishing parks, zoning and land-use planning and contributory measures such as involving local communities in management or offering alternatives (employment, income, land, energy etc).

The direction of the response and the assessment clearly will depend on which **measures** and which **at risk environment(s)** are chosen.

Candidates will probably:

- L3 Produce a high quality response, based in detailed knowledge of at least two different protective measures in their rural contexts. Show good understanding of the management issues and assess effectiveness well, perhaps structuring the overall answer as an assessment. [12-15]
- L2 Offer a sound account, which may be good in parts but which is limited by one or more of the following: a lack of knowledge (measures and/or environments), of understanding, of skills in assessment or of structure.

Answers on one measure remain in this level.

[7-11]

L1 Make a few basic observations about environmental protection, maybe using one or more simple examples or writing generally. Show a lack of conceptual understanding. Provide little or no meaningful assessment of effectiveness. Lack time to complete the work or use notes. [0-6]

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- 5 (a) Fig. 3A shows imports, exports and the balance of trade, 1992-2003 for Costa Rica, a LEDC in Central America. Fig. 3B shows the location of Costa Rica.
  - (i) How is a balance of trade calculated?

exports minus imports (of visible goods) or the difference between

[1]

- (ii) Using Fig. 3A, describe the trend in Costa Rica's balance of trade for the period.
  - a full answer covers both movement and scale. Key features are the trade deficit or adverse balance in all years except 1999 and the significant drop (increase in deficit by approx 4 times) in 2002-3.
- (iii) What other information would you require for a fuller understanding of Fig. 3A?

Great potential here, credit points 1 or 2, possible answers include, nature of imports and exports; reports (media, government) on causes of situation in 99 and 02-03; trade agreements and political decisions; changes in the global market; other. Although beyond the figure, please allow up-to-date statistics (end in 2003). [5]

(b) Some governments see exports of manufactured goods and agricultural products as 'the economy's engine for growth'. Assess the potential difficulties of such a trading strategy, supporting your answer with examples you have studied.

Any LEDC or MEDC examples are valid but candidates must address both **manufactured goods** and **agricultural products**.

**potential difficulties** include world market trends and prices, competition, quality, tariffs and protectionist measures, catastrophes e.g. harvest failure, indebtedness, cost of inputs (imported) compared to price of exports etc.

Candidates will probably:

- L3 Structure their work as an assessment, demonstrate a perceptive and contemporary understanding of several potential difficulties of being export-led in both sectors, use examples well.

  [12-15]
- L2 Develop a sound to good answer, having knowledge of both sectors, although not necessarily in a balanced manner. Show fair to good understanding of at least two potential difficulties. May not integrate description and assessment or convince entirely. [7-11]
- L1 Make one or more simple observations about exports, which may be general. Offer little or no assessment. Misconceived, fragmentary and note-form answers remain in this level.

  [0-6]

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# 6 (a) (i) Using examples, describe and explain two negative economic impacts of tourism apart from leakage.

there are may possibilities at different scales, including,

- sectoral shifts in employment e.g. from fishing
- loss of agricultural land for building
- economic vulnerability e.g. to downturns, fashion
- dependency e.g. on MEDC markets
- foreign ownership
- low skilled labour demand/foreigners dominate management
- seasonal income and seasonal labour demand
- shift in spending away from locals' needs
- cost implications e.g. upgrading degraded environments
- other

Credit each impact 3, allowing 4/2 or 2/4 if appropriate.

[6]

### (ii) Suggest ways in which any one negative economic impact of tourism may be minimised.

Whilst the answer's direction will depend on the **impact** chosen, the candidate has the freedom to choose the best suited. Most answers are likely to relate to better policy and/or planning (e.g. land-use, economic planning, controls, government priorities etc.). Others should be marked on merit. Better responses may support their observations with evidence or make clear the difficulties of overcoming the problem. [4]

(b) How may social and political conditions affecting a tourist destination reduce significantly the flow of tourists to it? Support your answer with examples.

Relates to information about and the perception of **destinations** by potential visitors. The list of **conditions** potentially includes political conflict; military conflict; religious conflict; ethnic conflict; social unrest; terrorism; human rights violations; political regimes or ideology; health concerns; crime and safety; negative images; unspecific fears and uncertainties; other.

In many cases it may be hard to – and unreasonable to expect candidates will – separate the **social** from the **political** but both should be expressed, if not in a balanced way. The question excludes environmental and economic conditions.

Candidates will probably:

- L3 Develop an astute analysis of both social and political conditions, showing good conceptual understanding and a strong knowledge base. Impress by the responses's perspective and/or development. [12-15]
- L2 Offer an answer the character of which is sound to good but partial. Have some insight into social and political conditions but produce a response which lacks depth and/or development. May focus on either the social or the political. Structure the work moderately.

  [7-11]
- L1 Make a few simple observations about social and/or political conditions. May have difficulty grasping the issue from the perspective of potential tourists. Lack suitable or specific examples. Offer notes only.

  [0-6]

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#### **Economic transition**

7 (a) Explain the term *international spatial division of labour* with detailed reference to the organisation and operation of one transnational corporation (TNC) you have studied.

A full explanation covers both core ideas: *international spatial* and *division of labour* in the context of the chosen **TNC**, making clear both how the firm is organised across a number of/many countries and how work is divided up into different functions e.g. R&D, corporate HQ, production, marketing, using comparative advantage to the full. Whilst this often leaves "white collar" jobs in MEDCs and factory jobs in LEDCs and NICs this is an over-simplification.

Mark on overall impression of knowledge and understanding and the structure of the account. [10]

(b) To what extent do you agree that for LEDCs the globalisation of economic activity is a new form of dependency on MEDCs?

**dependency** is where one group is only able to survive and progress by relying on the involvement and support of the other, it is classically associated with the colonial system. Geographers find elements of dependency in many international contexts e.g. trade, trade, finance and indebtedness, development, tourism, energy etc.

**globalisation** lacks a precise definition but is usually seen as the growing interconnectedness of the world, in this case in relation to **economic activity**.

It has clear dependent aspects e.g. in TNC location decision-making but a strong and valid counter-argument could be made through the growth and development of NICs and the emergence of new markets in some parts of the world.

Candidates will probably:

- L3 Provide a robust and perceptive assessment of globalisation as, and not as, dependency, which although not comprehensive, shows good conceptual understanding and a firm knowledge base in relation to both MEDCs and LEDCs. [12-15]
- L2 Develop an answer which is quite sound and which may be good in parts. Have knowledge and understanding of some aspects of the issue, but consider dependency and/or MEDCs and LEDCs in an unbalanced, one-sided or partial manner. Offer an assessment of value but lacking depth or development. [7-11]
- L1 Make a few simple points of a largely or wholly descriptive nature showing basic knowledge. Lack understanding of one or both terms (globalisation, dependency). May simply agree or disagree with the idea but not really assess. Superficial, fragmentary and note-form responses remain in L1. [0-6]

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- 8 (a) China's industrialisation was rapid in the 1990s but spatially uneven. Figs 4A, 4B and 4C show the top three provinces and the bottom three provinces for industrial development, 1991-2000, using different measures.
  - (i) Compare the results given in Figs 4A, 4B and 4C.

bottom three are all the same using Si and Gi 1 but all different using Ci 1

top three all have Jiangsu and Guangdong 1 but differ on third province 1

the surprising outcome for Sichuan (top on Si but bottom on Ci) 1

[5]

(ii) Suggest an economic explanation for such uneven industrial development.

Mark on merit but may have elements of core-periphery (coast/interior), cumulative causation and/or industrial policy. Credit specific knowledge e.g. of SEZs, but candidates are not required to know China and are more likely to answer this using general knowledge of spatial disparities etc. [5]

(b) Why is relatively little social development experienced in some countries? Support your answer with examples.

**social development** involves aspects such as education, healthcare, gender equality, law and order, personal wellbeing, empowerment of minorities, personal freedoms and recreation, although the first two are likely to be the better known. Countries experience **relatively little** for a potent combination of reasons,

social e.g. population pressure, tradition, religion, survival motive economic e.g. other spending priorities, debt, lack of finance, scale of need

political e.g. policy, ideology of regime, corruption

environmental e.g. inaccessibility

and because what is tried is opposed, does not work out, has limited success or fails. Credit well the idea that inequalities in **social development** exist e.g. by gender, class, race, urban/rural or regionally within countries.

Candidates will probably:

- L3 Produce an account which impresses either by its "big picture" perspective and diverse exemplar support or by detailed knowledge and understanding of restrictions on social development (in at least two arenas or countries). Provide a dynamic and interactive explanation. [12-15]
- L2 Make a fair response, which may be good in parts and which is generally sound in knowledge and understanding. May show limited depth and/or development perhaps only dealing with one arena of social development in one country and majoring on one dimension, probably economic.
  [7-11]
- L1 Offer a few simple observations which show a little knowledge and/or a limited grasp of the concept of social development. May answer generally or using an example or examples in a basic manner. Superficial and fragmentary answers remain in this level.

  [0-6]