MARK SCHEME for the October/November 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.

Mark schemes must be read in conjunction with the question papers and the report on the examination.

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UNIVERSITY of CAMBRIDGE International Examinations

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Production, location and change

1 (a) Fig. 1 shows the world distribution of the production of artificial fertilisers for agriculture in 1954 and 1998.

How may the changes in the production of artificial fertilisers shown in Fig. 1 be explained? [10]

The changes are, in scale, a massive increase from 5.9 to 90.1 million tonnes (84.2) or approx. 15-fold, and in location: spread and diversity: new entrants e.g. China; strong growth e.g. SE Asia; moderate e.g. East Europe/USSR, slight decline Japan.

Explanation rests in an appreciation of agriculture and industry, giving the candidate an opportunity to integrate the topics and of both demand and supply.

Demand stems from changes in agricultural production in character and extent, especially by the Green Revolution and other attempts at intensification. It also reflects a shift from organic fertilisers (e.g. manure, ash) to artificial ones, changes in government initiatives, farmers' training, incomes, norms, choices etc. Nature of the agricultural systems e.g. intensive rice cultivation over subsistence, matters.

Supply clearly relates to demand, profitability etc but also to the nature of the product (bulky, relatively low value, costly to transport etc). Some production would have been for export, much for use within country or region. It also reflects the industrialisation of economies, the development of manufacturing, investment etc.

Comprehensive answers are not needed, but for one which only sees either an agricultural or an industrial explanation, suggest **max. 6**.

(b) With reference to examples, assess the extent to which the use of artificial fertilisers in agriculture has proved to be a problem.

Proved to be a problem suggests unforeseen issues and negative externalities associated with an innovation which, in the overall analysis, has increased food production massively, avoided a Malthusian crisis, increased incomes, raised export earnings from cash crops etc. Any **problem** is valid and may be physical or environmental e.g. pollution of groundwater; socio-economic e.g. indebtedness, diminishing returns, cultural change; political e.g. corruption, freedom issues.

Candidates will probably:

- L3 Provide an effective, mature assessment of the benefits and the problems of using artificial fertilisers, which, whilst not comprehensive, impresses with its breadth of perspective, judgement and detailed exemplar support. [12–15]
- L2 Develop a sound to good response, recognising both benefits and problems associated with the fertilisers' use, but maybe not in a balanced way. May provide a separate assessment after explanatory content. May base the answer on one example (max. 10).
 [7–11]
- L1 Lack the perspective to answer in more than a basic way, perhaps taking a catastrophic or a "rosy" view of artificial fertilisers. Make a few basic points about problems and/or benefits. Offer little or no assessment and few, if any, examples or answer in a generic manner.
 [0–6]

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2 (a) Table 1 shows the results of a survey in 1998 of 37 firms in Singapore, about support they received from the government's Local Industry Upgrading Programme (LIUP). Singapore is a newly industrialised country in Asia.

(i) Describe the support Singapore's LIUP gave to firms.

[3]

Candidates need to do more than rewrite Table 1 in words e.g. it is financial (tax incentives, tax relief), technical (e.g. SITAS) and has a concern for research and innovation. It identifies key areas such as equipment and human resources.

(ii) Describe the types of industry most likely to have benefited from the LIUP. [4]

Light (rather than heavy), hi-tech (rather than low-tech), small (rather than TNC), modern (rather than traditional) etc. with significant research, development and innovation components. Those who want and need to change, keep up to date and be competitive. Suggestions may include the computer industry, pharmaceuticals, electronics etc or a list of possible products may be given. Accept manufacturing, related service (and quaternary, if known).

(iii) What other information would be required for a fuller understanding of the LIUP in Singapore? [3]

Credit that what *is given* lacks detail e.g. % tax relief, amount of \$, what the specific Schemes involved, time scale etc. **1/2**, credit what *is not given* e.g. location, other LIUP work, government dept., attitudes, success/failure, media reports **2/1**.

(b) Assess the effects of changes in transport on the location of manufacturing in an area you have studied. The area you choose may be at any scale.

Here **transport** is one of the named factors to be studied affecting industrial location. Ideally a candidate would have knowledge of an **area** which demonstrates more than one transport context, era or technology. In general transport has become freer, more flexible and less important as a location factor (arguably) allowing manufacturing to become footloose, dispersed etc. The big shift was to road transport but in a post-1960 syllabus it may be that port technology, containerisation or air transport, urban congestion and EPZs etc. may feature.

Clearly **transport** may involve rm's, components, products, workforce etc. It is possible to credit negative reasoning e.g. industrial inertia, increased costs and difficulties where locational change, whilst needed, has not happened (yet?). A map or diagram may enhance the response and do more than locate the area.

Candidates will probably:

L3 Provide a well-organised and perceptive assessment of the effects of changes in transport on manufacturing location in the chosen area, supported by good case detail.

[12–15]

- L2 Make sound to good use of limited knowledge and/or understanding of the issue in this area. The response, whilst valid, may be patchy in quality or partial in the assessment made, maybe diverging into 'other factors'. [7–11]
- L1 Answer in a descriptive manner, the assessment being basic, superficial or lost. The area may be unclear or simply general. Show some simple knowledge of changes in transport and/or location. [0–6]

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Environmental management

3 (a) Explain which type of energy production you consider to have (i) the least, and (ii) the greatest, environmental impact. [10]

An opportunity for the candidate to use their judgement, note that it is production not transport and use also, this time. For environmental impact candidates should recognise both pollution and broader impacts e.g. on landscape or the view.

It may be easier to specify wrong answers than acceptable ones. It is likely that for **(i) the least** candidates will choose a renewable, much will depend on the argument and examples. Better answers may balance the non-pollutative element with significant environmental degradation?

For **(ii) the greatest** candidates should take a fossil fuel or nuclear power. Of the fossil fuels, gas is not really acceptable. Fuelwood could be an interesting case given the massive demand in LEDCs, deforestation, desertification etc.

A "clever" answer taking nuclear for both (i) under normal conditions and (ii) in catastrophic ones, should be marked on merit.

Suggest credit **5/5** with flexibility to **6/4** and **4/6** where one is more developed or where a patently wrong choice was made.

(b) Choose one scheme which exists to supply energy. Explain the attitudes of different groups of people to the scheme and any disagreements or conflicts of interest which have occurred.

Whilst any scheme is acceptable, and at any scale, one which was not universally wellreceived and which caused **disagreement** will lend itself particularly well to the question set. Credit well the differentiation of **groups of people** and within group differences as well as between group ones. Not all local people thought ... some politicians voted for ... but the opposition ... farmers/others etc.

The concept of **conflicts of interest** is still difficult for some and may be interpreted simply, as conflict, such as violence or protest (although this may have relevance).

Candidates will probably:

- L3 Produce a detailed explanation, showing good knowledge of the scheme and high level understanding of attitudes and conflicts of interest, structuring the response well. [12–15]
- L2 Give a sound explanation of fair to good qualities in terms of knowledge of the scheme and different groups of people, and understanding of attitudes and/or conflicts of interest. The response is solid but lacks development, organisation or cohesion. If not a clear scheme, max. 9.
 [7–11]
- L1 Describe a scheme but may struggle to use it in the manner required. Make one or two simple points about attitudes, disagreements and/or conflicts (of interest?) which may be brief, poorly expressed or doubtful. Lack the material, skills (or time?) to make more than a basic response. [0–6]

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4 (a) Fig. 2 gives the main objectives of forest management in Kenya, an LEDC in East Africa.

(i) Describe two of the strengths of this strategy for forest management. [4]

It will be interesting to see what **strengths** candidates see here: the list may include a holistic approach involving several sectors; placing forest in a wider context e.g. global markets or hydrological cycle/water balance; concern for sustainability; recognising diverse local needs e.g. jobs, recreation, fuel. "5 Ps" makes it clear, memorable, communicable etc.

Credit each 1, 2 or 3 depending on quality of insight and development.

(ii) Why is it so difficult to protect forests which are at risk?

[6]

Candidates are free to use their own material in support. For many reasons, which include:

- scale
- access issues, to and within forests
- funding issues e.g. staffing, training, cover
- many potential threats and competing claims
- technology issues e.g. fences, surveillance
- strong motives e.g. ancestral rights, profits, crime
- law issues e.g. slowness of process, corruption
- other

Suggest credit any one of the above areas of issues to **max. 3**.

(b) Using an example or examples you have studied, explain how it may be possible for an environment to be both developed economically and protected.

Any **environment** is acceptable from an urban heritage area to a national park or a coast. The question lies at the heart of environmental management and the debate about sustainability. Better candidates may recognise that the two demands may be accommodated with difficulty, at great cost, partially, in theory etc. Credit should be given for context e.g. where, when, why, what, who and how. A map or diagram may do more than simply locate the example.

Candidates will probably:

- L3 Offer a high quality explanation which impresses by exemplar detail, strong conceptual environmental management content and structure. Convey a sense of what is and is not achieved (and at what costs?).
- L2 Provide an explanation which is sound and may have some good elements, but lack depth or detail of knowledge and/or management understanding. May be strong on one aspect (development or protection). [7–11]
- L1 Struggle to take a management approach and write simply and descriptively with limited explanation or sense of the achievement. Use examples which are slight or generic (or "borrow" Kenya?) Fragmentary and note-form responses remain in L1. [0–6]

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Global interdependence

5 (a) Give the meaning of the term *resource endowment*. With the help of examples, explain how resource endowment may influence trade flows and trading patterns. [10]

Resource endowment means the amount/character of exploitable commodities 1

Classically these are physical resources e.g. fertile soils, forests, minerals, fish stocks, sun/sand/sea, but it is legitimate to include human resources.

Resource endowment may influence trade e.g. in primary products and semi-processed goods, tourism etc. It may also be of little relevance in countries with limited resource endowment, e.g. Japan or Singapore, through imports, EPZs, the development of the tertiary and quaternary sectors etc. Some resource-rich countries engage in limited trade because of other factors.

Suggest credit resource endowment as a positive influence on trade **5–7** and other factors and considerations **4–2**.

(b) To what extent are changes in the global market responsible for changes in the export trade of one or more countries you have studied?

It is legitimate to take visibles and invisibles, although both are not required. Much depends, as ever, on the case study or studies that candidates have and as such the assessments will be diverse. Tourism may feature as an invisible export.

In considering **the global market** candidates may consider demand, innovation, competition, players, prices, economic cycles, product life cycles, fashion etc. Consideration of 'other factors' is clearly important in making the assessment.

Candidates will probably:

- L3 Offer an able assessment of reasons for changes in exports, dealing with the global market and other factors well. Whilst not comprehensive, impress by their strong conceptual foundation and use of detailed examples. [12–15]
- L2 Provide a solidly reasoned account of export trade which may have some good elements. Show suitable understanding of the global market and other factors and reasonable knowledge of the chosen country(ies). Make an assessment which has a 'so far so good' quality. [7–11]
- L1 Write descriptively of export trade (and imports?). Show limited grasp of the meaning and operation of the global market and of any other factor(s). The assessment may be superficial, bold but unsupported, or lacking. Fragmentary and note-form responses remain in L1.
 [0–6]

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6 Fig. 3 shows a life cycle model of the development of resorts and tourist destinations.

(a) (i) Describe briefly the character of the involvement stage.

It follows exploration and precedes development: the involvement referred to is of local people in providing limited facilities for tourists e.g. simple accommodation, an eating place or bar, transport e.g. taxis. It is small-scale private enterprise by the interested or the entrepreneurial for low, but increasing, numbers of arrivals and generates a new source of income. A tourist season may emerge and known locations or market areas e.g. a particular part of the coast or town/village.

(ii) Explain the circumstances in which decline may follow stagnation. [6]

It may be conceived as three main ones:

- the continued deterioration and down spiral of the destination with an associated loss of attraction, fashionability and visitor numbers
- a lack of intervention/investment to rejuvenate the destination
- the wider context of the emergence and promotion of other places

A full explanation covers all three strands and offers some exemplar support, but not necessarily for each given the modest mark allocation and time available.

(b) Assess the usefulness of this model in understanding the development of resorts and tourist destinations. Support your answer with examples.

A straightforward invitation to consider its usefulness and limitations. Its usefulness is considerable as many resorts and destinations can be 'placed' in its cycle and loose time frame. It has some predictive usefulness, as a warning, even of the consequences of undermanaged and unrestricted growth. It may be seen as applying best to mass tourism and the experience of destinations such as the European seaside resort, the Costa del Sol, Spain, with its relatively long time scale of tourist development or Thailand and its rapid progression through the stages.

Limitations commonly referred to include its smooth shape given the reality of short-term fluctuations and oscillations; impact of events such as terrorist attacks in Bali or the tsunami of December 2004. The model applies less well to some forms of tourism, such as eco-tourism, or others where tourist numbers are restricted or carefully managed, e.g. an enclave resort, niche market or policy decision.

Candidates will probably:

L3 Show a high level of critical appreciation of the model, its usefulness and more than one limitation. Support their work with varied and detailed exemplar material. Make an assessment which, whilst not necessarily comprehensive, impresses by its insight.

[12–15]

[4]

- L2 Have a firm to good understanding of the model's usefulness and provide a sound, but limited, assessment. May lack breadth or detail of examples or conceptual understanding. For a response based on 'fit' to one resort or destination max.10. [7–11]
- L1 Provide a description rather than (much of) an assessment. Make a few valid basic points. Offer few or general examples. Fragments, notes and unfinished work remain in this level.
 [0–6]

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7 (a) Fig. 4 gives an overview of Toyota Motor Corporation from the company's website. [10]

An excellent summary of operation and structure as a stimulus to candidates.

Explain the main factors which have encouraged the growth of transnational corporations (TNCs) such as Toyota.

A number of **factors** may be covered, in a context of globalisation, including:

- stage(s) of economic development e.g. emergence of new markets
- changes in factors of production e.g. labour costs
- improvements in transport technology
- reduction in transport costs
- relative ease and speed of transactions in global financial systems
- innovation in telecommunications and IT systems
- government role: reducing nationalism and protectionism, giving incentives
- global consumer society and role of media and advertising
- other

Comprehensive answers are not required for this modest mark allocation. Mark on overall quality, bearing in mind levels of **0–4**, **5–7** and **8–10** for overall knowledge (including examples), understanding and skills (analysis, explanation).

(b) How far do you agree that the effects of globalisation in LEDCs have been largely negative?

Any position on the above statement is acceptable if argued and supported with exemplar material. Once again **effects** may be in four dimensions: environmental or physical, social, economic and political, e.g.

- pollutative practices and environmental degradation but the use of revenues to improve water supply and sanitation
- disruption to traditional family life but rise in living standards
- low, arguably exploitative wages but income and employment
- loss of government control but some empowerment

The World Bank reports that globalisation has both reduced world poverty and not helped millions of the poorest. Development and NICs make interesting studies.

Candidates will probably:

- L3 Provide a mature and perceptive response, integrating content with assessment and showing awareness of effects both + and in several dimensions. Demonstrate diverse outcomes and experiences. [12–15]
- L2 Answer moderately to well, in breadth and detail of knowledge, and/or understanding and/or assessment (skills, content). Whilst sound the work lacks development, either overall, or in the dimensions it covers. [7–11]
- L1 Make a basic response which is descriptive in character, with little or no assessment. Show limited knowledge e.g. of examples, or understanding e.g. of globalisation. Notes and fragments remain in this level. [0–6]

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8 (a) In 2005 the Chinese News Agency reported that the richest 10% of the population of China had 45% of the country's wealth, and the poorest 10% had just 1.4% of the country's wealth.

Describe and explain three ways that governments may attempt to decrease disparities in economic wellbeing within countries. [10]

Mark **ways** on merit to allow candidates to use the material they have, could be broad, such as investment in education, or the tax system, could be specific such as an agricultural improvement scheme or a regional initiative in the periphery.

Allow some credit for consideration of systems e.g. capitalist/communist and discussion of the rights and wrongs of inequalities or difficulties of decreasing them.

Credit the three ways flexibly, allowing one max. 5, two max. 8.

(b) To what extent does an understanding of cumulative causation help to explain the development of one or more regions within a country you have studied?

Candidates should have the following elements in an understanding of cumulative causation (Myrdal, 1957):

- initial advantage(s) e.g. mineral resource, harbour, soil quality
- the circular cumulation process reinforcing growth and triggering further development
- spread and backwash effects
- the multiplier effect

A diagram may assist the explanation (and save time?). Cumulative causation may be easiest to apply to a core region or a clearly peripheral one. There may be other factors or other models and understandings (such as Friedmann's core-periphery model) which may be supplementary or preferred. Any position is acceptable if supported from the chosen **region(s)**.

Candidates will probably:

- L3 Demonstrate high level conceptual understanding of cumulative causation, both its usefulness and its limitations. Make an effective assessment based on detailed use of the chosen region(s).
- L2 Provide a moderate to good response, which is of sound quality overall but partial in understanding of cumulative causation, application to the chosen region(s) and/or the assessment made.
 [7–11]
- L1 Make a descriptive rather than an evaluative response, based on generalities or on knowledge of a region. Show a little knowledge of cumulative causation but this may be faulty or mixed in with other regional material. Fragmentary and note-form responses remain in L1. [0–6]