

**MARK SCHEME for the October/November 2009 question paper  
for the guidance of teachers**

<b>9696/31</b>	<b>9696 GEOGRAPHY</b> Paper 31 (Human Options), maximum raw mark 50
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This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

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

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### Production, location and change

1 (a) Study Table 1 which shows agricultural data for low, medium and high income farming households in Burkina Faso, an LEDC in West Africa, in 2000.

(i) Suggest reasons for the variation in the average amounts of organic and inorganic fertilisers used by the different households.

The data has elements of straightforwardness and complexity in terms of the relationship with income. Better responses are likely to relate to Table 1 and not just the subject generally, for example seeing that high income households' heavy usage of organic fertiliser may offset the moderate use of inorganic fertiliser to an extent. The **reasons** are various, (physical, social, economic, political) but cost/purchasing power and availability (linked to ownership of draught animals) are highly significant. [6]

(ii) This survey found that soil erosion was greatest on fields belonging to high income households. Suggest two possible reasons for this.

Candidates' may derive **reasons** from Table 1, such as the removal of trees (9.7 compared to >15 elsewhere) means that the binding effect of root systems and protection from wind and rain are lost, or the profit motive (maize as a cash crop). They may also use wider knowledge of agricultural production e.g. high income households may hire workers who care less, modernisation may lead to loss of traditional soil husbandry etc. Credit **2/2** to **3/1** or **1/3**. [4]

(b) With the help of examples you have studied, explain what might be considered to be major obstacles to agricultural change.

An open question, allowing candidates to use their own material and make their own assessment of what is **major**. Contrast is creditable, but not required.

Candidates will probably:

L3 Develop a well-organised explanation clearly focused on the identification and assessment of two or more major obstacles to agricultural change from detailed examples. [12–15]

L2 Provide a satisfactory but limited or partial account, which may, at the upper end, contain some good elements. The explanation of the nature of the obstacles and agricultural change may dominate, with the element of assessment being restricted. For one obstacle, max. 10. [7–11]

L1 Offer a simple, or incomplete, response of basic quality. Have limited knowledge of examples or write quite generally. Give little or no sense of what, amongst obstacles, may be major, perhaps writing descriptively and finding it hard to direct their material to the question set. [0–6]

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**2 With reference to industrial policy and changes in industrial production in *one* country:**

An open question, allowing candidates to use the case study they have [syllabus 1.4].

Clearly much depends on the chosen case: whether an LEDC facing issues of debt and adverse terms of trade; an NIC rising in a globalising world; or an MEDC experiencing deindustrialisation, locational shifts and tertiarisation.

**(a) describe the issues faced in the management of industrial change;**

Credit highly the clear identification of at least two **issues**, and supportive detail such as what, when, where, how, why, who, with what effects, etc. Better responses are likely to have an appreciation of **management** and show knowledge and understanding of the associated **policy**.

Suggest bear in mind for overall quality, the mark bands 0–4, 5–7 and 8–10. [10]

**(b) evaluate the attempts made to overcome the issues you identified in (a).**

In many cases the **attempts** are likely to be those of the government, but any attempts are acceptable, for instance by individual entrepreneurs or industrialists, regional groupings, TNCs or a combination of these, for example perhaps using government funding and advice.

Under **evaluate** candidates may consider the aims and nature of the attempts, their motives, advisability, how they were pursued and funded and who was affected (particular industries or groups of people), spatially variant outcomes, etc., as well as their (relative) success or failure in overcoming the said **issues**.

Candidates will probably:

L3 Develop an effective evaluation of the attempts, clearly linked to issues (but not necessarily comprehensive). Demonstrate evaluative skills of a high order and detailed knowledge of the industrial experience of the chosen country. [12–15]

L2 Make a sound response which remains restricted or partial, in the attempts and issues covered and/or the evaluation offered. May be uneven in quality, making some good points but leaving some gaps, or have an overall 'satisfactory so far' quality to it. For a one issue response, max. 10. [7–11]

L1 Offer one or more basic observations about attempts, which may be brief. Show simple or general knowledge of industrial change, which may include some irrelevance. Tend to describe, rather than evaluate, what was tried. Fragmentary and note-form responses remain in L1. [0–6]

**[Total: 25]**

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## Environmental management

3 Fig. 1 shows the sources of primary energy for Country A, an MEDC, and Country B, an LEDC, in 2004.

(a) Suggest reasons for the variations between the two countries in the relative contributions of the different sources of primary energy shown in Fig.1.

Factors at a number of scales may be identified: global, MEDC/LEDC or global North/South, national and local. Better accounts may combine **reasons** at a number of scales and in different dimensions (physical, social, economic and political). Whilst interpreting the data robustly contributes to overall quality, credit is for the argument made and explanation offered on this occasion.

Suggest bear in mind for overall quality, the mark bands 0–4, 5–7 and 8–10. [10]

(b) Neither country shown in Fig. 1 was producing energy from nuclear sources.

**Consider the arguments for and against building nuclear power stations to meet rising energy demands in MEDCs and LEDCs.**

Here **arguments for** nuclear power include its vast energy potential, the relative ease of availability of uranium (as well as the limitations of alternative fuels whether fossil or renewable). Arguments against nuclear power major on safety issues and environmental concerns about production, accidents and wastes. Candidates would do well to recognise that considerations may be different in LEDCs, maybe including prestige and weapons potential (?) but that capital, technology and skills may be low, other priorities dominant and powerful MEDCs and international bodies against this development.

Candidates will probably:

L3 Provide a perceptive assessment of the arguments, which is reasonably balanced in coverage for and against and supported by evidence, such as data or examples. Differentiate effectively between MEDCs and LEDCs.

Impress with good understanding of the energy scene in general and rising energy demands and the nuclear option in particular. [12–15]

L2 Produce a satisfactory response which may be good in parts but which remains limited or partial in knowledge shown, understanding of energy or consideration of arguments. May be unbalanced for/against. May treat MEDCs and LEDCs together wholly or at least in part. [7–11]

L1 Offer one or more basic observations about nuclear power (and other sources?). Provide an ordinary account which may be narrative in character rather than an actual consideration. Have simple or faulty understanding of nuclear energy. Offer notes or fragments. [0–6]

**[Total: 25]**

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**4 (a) Use examples to help explain how land pollution may be reduced.**

A variety of approaches are possible, for example, by education, by changes to the law, by named attempts or campaigns, by new attitudes to waste and the trio reduce/re-use/recycle. Accept any material relevant to land pollution from the composting of green wastes to the installation of waste bins or authorities' and pressure groups' roles in changing people's attitudes.

Under **explain** candidates may cover what is done, where, how, by whom, how it's funded and with what impact(s). Credit local detail and background understanding, such as of the implications of landfill or resource depletion.

Suggest bear in mind for overall quality, the mark bands 0–4, 5–7 and 8–10.

For a general account without effective examples, max. 6. [10]

**(b) With reference to one or more incidents, assess how accidental pollution may result in environmental degradation.**

Candidates may differentiate between major one-off incidents such as an oil spill or nuclear disaster, ongoing poor or illegal practices such as fuel tank washing by ships or disposal of liquid wastes into water courses by industry, and small-scale or localised accidents e.g. resulting from a road crash or pipe leak.

Response quality may be indicated by exemplar detail, the links made between the pollutive incident(s) and the environment (land, air, water, flora, fauna, ecosystems, etc.), an appreciation of timescale (immediate, medium- and long-term) and the assessment of human intervention and action or the lack of it.

Candidates will probably:

L3 Structure their whole response as an assessment, integrating detailed coverage of the chosen incident(s) with evaluative comments and judgments. Demonstrate a good grasp of the connections between such accidents and environmental degradation over time. [12–15]

L2 Provide a response of 'satisfactory so far' quality overall, which may include some good material and observations, but which is restricted or partial in terms of knowledge of the incident(s), links to environmental degradation or the assessment offered. [7–11]

L1 Make one or more basic points about pollutive accidents. Lack detailed knowledge of incident(s); write quite generally or in name only. Offer little or no specific comment about the degradation of the environment(s). Tend to describe what or why rather than assess how. Notes and fragments remain in this level. [0–6]

**[Total: 25]**

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**5 (a) Describe and explain the effects of trade agreements and innovation on global trade flows and trading patterns.**

Two of the factors specified in the syllabus. Both terms will probably need an element of definition or at least introduction. As any trade agreement and any innovation is acceptable, responses will be diverse, but are likely to recognise in the case of agreements the effects of restrictions and preferential terms, and 'winners' and 'losers'; and, for innovation, changes in transport/communication, the dynamic changing nature of markets, e.g. within an industry such as electronics, or where new products, use different raw materials, as in the case of cable and the collapse of the market for copper. Global shift and the rise of NICs may be relevant.

Fully comprehensive answers should not be expected. Suggest bear in mind for overall quality, the mark bands 0–4, 5–7 and 8–10. Mark flexibly, using max. 6, for a response on only trade agreements or innovation. [10]

**(b) Assess how and why trade in visible exports may be preferable to tourism as the foundation for a country's development.**

This gives an opportunity for candidates to combine their knowledge and understanding of trade with that of tourism and to reflect on the nature of, and certainties and uncertainties of trends in, trade in visibles and tourism. In assessing the quality of the response made, it may be helpful to use a grid, although the direction of the response may be more towards the shaded cells:

	positive	negative
visible exports		
tourism (invisible)		

Candidates will probably:

- L3 Provide an effective assessment of what the two sectors may and may not offer, supported by detailed examples and sound conceptual understanding of both sectors and their connections to development. Demonstrate skills in argument and structuring a response. [12–15]
- L2 Develop a sound response, which may contain some good points, but which remains limited in the breadth or depth of knowledge or conceptual understanding shown, or of the assessment offered. Unbalanced responses (trade/tourism or +/-) are likely to remain in this level. [7–11]
- L1 Struggle to use the material they have in the requisite manner. Make one or more simple observations about the sectors, maybe focussing on the catastrophic. Take a descriptive approach, making little or no real assessment and few links, if any, to development. Notes, fragments and a tabular approach, remain in this level. [0–6]

**[Total: 25]**

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- 6 (a) Fig. 2 shows trends in employment in agriculture and tourism between 1951 and 2001 in Tyrol, a mountainous region in Austria, an MEDC in Europe. Tyrol is known for skiing in winter and outdoor activities in summer.

- (i) Compare the trends in employment in agriculture and tourism in Fig. 2.

Overall employment in agriculture (EA) falls and in tourism (ET) increases, with accurate data support 3. Variability: either the rates of change vary by decade 1 or 1961–1971 ET decreases slightly 1. [4]

- (ii) Suggest two ways in which agriculture may still be important to a tourist region such as Tyrol.

Traditional agriculture enhances landscape quality, preserves traditions and buildings which may contribute to the tourist experience and may provide accommodation or some foodstuffs, e.g. dairy. A diverse economy is usually seen as more secure. Mark on merit 2/1 or 1/2. [3]

- (iii) Explain briefly how employment in tourism may have a multiplier effect in a local economy.

The multiplier effect means that jobs in tourism impact the economy by raising purchasing power, creating demand for goods and services and stimulating further development. Local (regional) taxes may be included. From cumulative causation, aka 'success breeds success'. [3]

- (b) 'Tourism is a powerful weapon in the battle against poverty in LEDCs.' To what extent do you agree with this statement?

A number of different approaches are possible, although the focus of most responses is likely to be the economic advantages and disadvantages of tourism.

Factors in other dimensions are clearly relevant: social, such as population growth, illiteracy and tradition; physical, such as resource potential, hazards or degraded environments; and political, such as government policy or priorities, corruption. Economic analysis may include foreign ownership and personnel, leakage, enclave resorts, seasonality, wages, skills training and eco-tourism.

Candidates will probably:

L3 Structure the whole response as an assessment. Analyse factors in a number of dimensions and show good conceptual grasp of poverty. Integrate detailed LEDC examples. [12–15]

L2 Provide a response of sound quality, which may contain some good observations, but which remains restricted or unbalanced overall in knowledge and understanding of the topic and/or the assessment made. For one dimension (economic?) or one LEDC, max. 10. [7–11]

L1 Make one or more simple points about tourism, perhaps struggling to select and apply material suitably or address the statement much. Offer little or no assessment. Notes and fragments remain in L1. [0–6]

[Total: 25]

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## Economic transition

7 Fig. 3 shows the percentage of undernourished population, by country, in 2003. Undernourishment results from inadequate food consumption over a period of time.

(a) Describe and explain some of the ways in which development may be linked to improvements in food consumption. Support your response with examples.

Candidates may consider low or moderate development and increased quality and quantity of food to eat, but credit any **ways**, including MEDCs' concerns about obesity, salt intake, fat content and an emphasis on "healthy eating".

Development in the agricultural sector is basic; other links might be social, e.g. reduced population pressure, smaller families, improved educational status of wives and mothers, fashion; economic, e.g. investment in roads; higher wages from secondary employment; increased disposable income; environmental, e.g. soil and land management; water supply issues; or political, e.g. good governance, national planning, MDG 1 priority.

Suggest that a full response consists of at least three **ways**, bearing in mind for overall quality, the mark bands 0–4, 5–7 and 8–10.

For a general response without examples, max. 6. [10]

(b) Assess the limitations of using the percentage of undernourished population, shown in Fig. 3, as a measure of inequality. What other measures might be effective?

At least three core ideas could be usefully considered here:

- the concept of undernourishment  
quite loose, involves both a lack of food overall (→ starvation) and the lack of one or more key elements such as protein (→ deficiency diseases).
- statistical issues  
difficulties of data collection, population counts, the nature of percentages, etc.
- measuring inequality  
this data is at the national scale, but inequality may be regional, rural/urban, M/F, adult/child, etc. It is silent about other issues e.g. economic, political. The **other measures** may be single criterion- or multiple criteria-based, e.g. HDI.

Candidates will probably:

L3 Provide an effective assessment of this measure's limitations, covering at least two core ideas. Demonstrate detailed knowledge of other measures, high level skills in argument and organise the response well. [12–15]

L2 Develop a sound response which may contain some good elements, but which remains restricted or partial in breadth or depth. For a well-developed and illustrated response on one core idea, max. 10. [7–11]

L1 Struggle to use their knowledge and understanding of inequality measures to address this question. May list others or make one or more simple points and little or no assessment. Offer notes or fragments. [0–6]

[Total: 25]



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- 8 (a) (i) Give the meaning of the term *international spatial division of labour*.
- (ii) With the help of one or more examples, explain why the international spatial division of labour changes over time.

Flexible marking across the two sub-parts, lest the meaning be enhanced in (ii).

- (i) The definition, which is worth up to 2, needs to cover the two aspects:  
**international spatial division of labour** so between countries/across the world  
the breakdown of production into jobs/tasks, to improve efficiency and therefore profitability
- (ii) It changes over time because of globalisation, changes in competitiveness between countries, changes in products, government policies etc. Notably TNCs look to LEDCs and NICs in order to cut costs. Profitability is key.

For a response without an example or examples, max. 6. Suggest bear in mind for overall quality, the mark bands 0–4, 5–7 and 8–10. [10]

- (b) In what ways may transnational corporations (TNCs) continue to grow *except* by the advantages they gain from the international spatial division of labour?

In a number of ways, allowing candidates to use the material they have. Growth may be in size, market share, profitability, etc. Possibilities include,

- expanding existing operations
- penetrating new markets, such as China
- taking advantage of financial incentives offered by governments
- diversification of enterprises away from the core business
- mergers, acquisitions and takeovers
- innovation and new products
- internal changes such as restructuring, energy efficiency initiatives, productivity bonuses, training
- other

Candidates will probably:

- L3 Provide an account distinguished by its overall perspective and high level of conceptual understanding of the operation and organisation of TNCs. Support their explanation with detailed exemplar material. [12–15]
- L2 Develop a satisfactory to good quality account of ways for TNCs to try to continue to grow, but one which is restricted in depth or breadth of knowledge and understanding. [7–11]
- L1 Offer one or more simple points or ideas. Show basic levels of knowledge and understanding of TNCs, which may remain general or use examples in name only. Tend to write descriptively. [0–6]

[Total: 25]