### MARK SCHEME for the October/November 2013 series

### 9696 GEOGRAPHY

9696/32

Paper 3 (Advanced Human Options), maximum raw mark 50

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 should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

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### Production, location and change

### 1 (a) Table 1 gives estimated annual production from cattle in selected types of agriculture in sub-Saharan Africa in 2006.

### Describe, and suggest reasons for, the differences shown in Table 1. [10]

A full description refers to all three indices for different agricultural types, but not necessarily for all of them. It is likely that candidates will identify the mid-range values and the extremes, e.g. herd growth rate in pastoral in arid/semi-arid areas (0.1%), milk production in small scale dairying (25 times higher than the next value shown). In suggesting reasons, credit the identification of different physical and human factors (environmental, social, economic, political) working in combination and determining the character of the types (e.g. subsistence/commercial; intensive/extensive). Specific knowledge of one or more types may be evident – yet the names candidates tend to use, such as pastoral nomadism or ranching, are not the ones the FAO uses here.

Comprehensive answers are not needed for the modest mark allocation. Credit well a sense of the interaction of different factors, the integration of examples, and the conceptual understanding of production shown.

Mark on overall quality, bearing in mind three bands of marks and levels of response: 1–4, 5–7 and 8–10. For no response, or no creditable response, 0. Examples may be generic from the table or named.

### (b) With reference to one or more examples, assess the role of the government in promoting agricultural change. [15]

Much depends on the example(s) chosen, but most cases of agricultural change depend to some extent on government policy, projects or investment. Action may be direct, e.g. through land reform or installing irrigation systems; or indirect, e.g. by funding popular TV about farming. Critical appreciation is encouraged. Other roles may include those of farmers, markets, the weather – and the wider context.

#### Candidates will probably:

- L3 Structure their response as an assessment, show detailed knowledge, a high level of conceptual understanding and argue convincingly and critically, using the example(s) effectively.
  [12–15]
- L2 Produce a sound response, which may be good in parts, but which remains limited in overall detail or development. May sandwich a satisfactory descriptive response between evaluative comments.
  [7–11]
- L1 Make a basic answer which may have a weak focus on government and contain thin or inappropriate exemplar knowledge. Make one or more valid points, but offer little or no meaningful assessment. Notes and fragments remain in this level. [1–6]

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### 2 (a) With the help of one or more examples, explain what makes a location attractive to manufacturing and related service industry. [10]

A number of approaches may be seen. For example, different types of locations could be profiled, such as industrial estates, agglomerations or export processing zones (all of which are named in the syllabus). A factor-based response is also possible (economic, social, environmental, political). Conceptual content may include functional linkages, the prospect of achieving eternal economies of scale, changes to the spatial margins to profitability, policy shifts, or the impact of changes in accessibility, e.g. stemming from investment in transport infrastructure. The roles of place promotion and media may be included, as may behavioural factors such as home town, or high quality environments for work, family and recreation.

Mark on overall quality, bearing in mind three bands of marks and levels of response: **1–4**, **5–7** and **8–10**. For a response without the example(s), **max. 6**. For no response, or no creditable response, **0**.

### (b) Assess the extent to which recent changes in manufacturing production in <u>one</u> named country have been successful. [15]

This open question allows candidates to use the material they have and to structure their own response. Here **production** may be interpreted as processes and the organisation of production, such as JIT 'just-in-time' systems; the character (nature) of production, e.g. change to export-oriented from import substitution, or new industries; or as output (type of products, quality, volume, markets, etc.). The word 'recent' is included to try to avoid an historical approach.

#### Candidates will probably:

- L3 Use detailed knowledge of manufacturing production and evaluative skills as the foundation for a perceptive, conceptually robust and well-structured assessment of success. May recognise that success varies e.g. spatially and by sector. [12–15]
- L2 Show reasonable to good knowledge and understanding of manufacturing production in the chosen country, but offer an assessment which is partial, limited overall or fragmented. The approach may be more explanatory, than fully evaluative. [7–11]
- L1 Produce a response of basic quality which may remain general or broadly located. Struggle to select and apply their material to the question. Take more of a descriptive approach, offering little or no effective assessment. Notes and fragments remain in this level. [1–6]

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### **Environmental management**

### 3 (a) Outline, and suggest reasons for, recent changes in the consumption of fossil fuels and renewable energy. [10]

Much depends on the scale at which candidates choose to respond. The syllabus has both 'LEDCs and MEDCs' and content for one country. In many countries the proportion of fossil fuels is decreasing, and of renewables increasing. This may hide an increase in the absolute use of fossil fuels. The energy mix is also changing, for example, with less use of coal and more use of gas, such as LNG, liquefied natural gas. A response may include nuclear energy as either (or omit it, especially given (b) that follows). Reasons may be social, economic, environmental and political. Contemporary emphases include concerns about carbon emissions and global warming, resource depletion and energy security.

Mark on overall quality, bearing in mind three bands of marks and levels of response: 1–4, 5–7 and 8–10. For a response without examples, **max. 6**. For no response, or no creditable response, 0.

### (b) With the help of examples, assess the concerns about the environmental impacts of nuclear power. [15]

The environmental impacts relate to the extraction of the mineral uranium, the operation of nuclear power stations (wastes, failures, catastrophic events) and the long-term consequences of contamination, burial of wastes, decommissioning of plant, etc. The catastrophic is likely to dominate, e.g. Chernobyl 1986, Fukushima 2011, but credit well a broader understanding of threats and impact. The assessment may be about scale, likelihood, what is known/unknown, the perspectives of different groups of people, etc.

#### Candidates will probably:

- L3 Develop a high quality assessment of concerns about the environmental impacts of nuclear power. Show detailed and reasonably up-to-date knowledge and good conceptual understanding of the source. Structure the response well. [12–15]
- L2 Provide a response of sound quality which may be good in parts or as far as it goes. Offer a broad response about nuclear power, which lacks supportive detail, or a specific one on a narrower base. Give a satisfactory but limited assessment which may not be integrated with the rest of the answer. [7–11]
- L1 Struggle to deal with the topic through lack of a robust perspective or specific examples. Make one or more basic points about nuclear power. Take a descriptive approach, offering little or no meaningful assessment. Notes and fragments remain in this level. [1–6]

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4 (a) Photograph A shows the construction of a pipeline to transport crude oil from the Amazon rainforest in Ecuador, South America, to the coast. Guards protect the work because of threats from environmentalists and indigenous people.

With reference to Photograph A, explain some of the ways in which the rainforest environment may be at risk of being degraded by the construction of the pipeline. [10]

Candidates study pollution, factors in the degradation of rural environments and the protection of environments at risk. The photograph should be interpreted in the light of this knowledge and their wider geographical understanding.

Possible **ways** from the construction and operation include:

- habitat alteration affects fauna
- tree removal (rainforest quality)
- destruction from heavy plant
- soils removed and compacted, profiles disrupted
- natural drainage altered
- pollution: land, air, water
- roads open up areas e.g. to loggers or settlers

Mark on overall quality, bearing in mind three bands of marks and levels of response: **1–4**, **5–7** and **8–10**. For a well-developed general response, without reference to Photograph A, **max. 6**. For no creditable response, **0**.

### (b) Assess the success of attempts to improve the quality of <u>one</u> degraded environment that you have studied. [15]

Any environment at any scale is acceptable. In the past these have ranged from a rubbish tip in the Caribbean to the Murray-Darling river basin in Australia. Look for some detail of the nature of the degradation (but not necessarily its causes, unless relevant) and the attempts; and for the quality of the evaluation, for example what 'success' means for the chosen example and how it is measured.

#### Candidates will probably:

- L3 Produce a high quality assessment, well-founded in detailed knowledge of the chosen environment. Demonstrate strong conceptual understanding and good skills both in structuring the response and in assessing the outcomes. Impress by overall perspective and use of material.
  [12–15]
- L2 Develop a response of sound to good quality. Whilst satisfactory as far as it goes, candidates may lack one or more of detailed knowledge of attempts, conceptual grasp, skills in and/or the language of assessment. At the lower end may deal more with success quite generally. [7–11]
- L1 Make a response which is more a description than an assessment. Make a few basic observations about an environment, but lack knowledge of attempts and/or their success. Fragmentary and note-form responses remain in this level [1–6]

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#### Global interdependence

### 5 (a) (i) Give the meaning of the terms visible import and invisible export.

A *visible import* is a good or product that is traded and flows into a country; it is *visible* in that it can be touched or seen, e.g. maize, cars. **2** 

[4]

An *invisible export* is a product that is traded and flows out of a country; it is invisible in that it cannot be touched or seen physically, e.g. a service such as tourism, consultancy, finance or information. **2** 

### (ii) Using an example of a traded product, briefly explain trade relationships between MEDCs and LEDCs. [6]

Any product may be chosen. Relationships will depend on the chosen product. For example, coffee grown in East Africa (LEDC) may be exported to Europe (MEDCs) for processing and packaging by TNCs such as Nestlé. Coffee cannot be grown in temperate latitudes. Many LEDCs lack the facilities to add value by refining and packing. A proportion of the coffee is then exported to East Africa for sale as a premium product. A service, such as tourism or education, may perform well. Other factors, e.g. trade blocs, may be relevant. **Max. 2** if no traded product used.

# (b) To what extent do political factors cause large increases and large decreases in trade? [15]

Candidates are free to develop their own response, using the material they have. In the syllabus relevant content about political factors includes trade agreements and the relationship between coloniser and colonised. Other factors of potential relevance include changes in the global market, tied aid and the tourism cycle. Equal balance is not expected between the two elements. Catastrophic events clearly have a role, but credit well a more nuanced understanding of the complexities of trade flow and how they change.

#### Candidates will probably:

- L3 Demonstrate strong conceptual understanding of how and why trade flows change. Whilst not making a comprehensive response, convince by their 'big picture' perspective, use of examples from more than one world region and multi-dimensional factor awareness beyond political. [12–15]
- L2 Produce a satisfactory to good assessment of sound quality. Show some knowledge of large changes in trade flows and fair to good overall understanding of why they occur. Develop a response which is limited in one or more ways (perspective, examples, evaluation, structure).
- L1 Make a few basic points which may be more broadly descriptive of trade than evaluative of reasons for large changes in flows. May over-generalise or make a superficial response in agreement or disagreement. Fragmentary and note-form responses remain in this level. [1–6]

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#### 6 Fig. 1 shows a model of integrated tourism development in an LEDC.

#### (a) (i) With the help of an example, give the meaning of the term ecotourism. [4]

*Ecotourism* is a form of sustainable tourism, which features the environment and/or ecosystem. It aims to do three things: to protect the environment; sustain, enhance and empower local communities; and benefit the destination economically (e.g. by minimising leakage).

For a soft definition that sees ecotourism simply as 'outdoor' activity, or for a response without an example or an effective example, **max. 2**.

#### (ii) Suggest three advantages of developing tourism in the way shown in Fig. 1. [6]

This is an opportunity to interpret an unfamiliar resource in the light of wider knowledge and understanding of tourism. Credit any **three** valid advantages, usually **2** each, with **1** for a simple observation, and **3** for an exceptionally well-developed point. Possible advantages include: protects the environment; offers a phased approach for investment; limits impact on local communities; gives potential visitors choice of activities and places to go; more secure than 'all eggs in one basket', other.

### (b) Assess the impacts of tourism on the environment, society and economy of <u>one</u> tourist area or resort you have studied. [15]

A classic question drawn from syllabus **3.4.** The command **Assess** requires more than a description or an explanation of impacts, for example in terms of their seriousness, significance, potential to be overcome or likely consequences. If more than one tourist area or resort is taken, credit the better (or best). Some may interpret **tourist area** broadly, e.g. as Kenya. This is acceptable, but may be hard to handle.

#### Candidates will probably:

- L3 Structure the whole response as an assessment and consider impacts, both positive and negative in all three dimensions. Make effective use of a detailed example. Impress by overall perspective. [12–15]
- L2 Provide a response of sound to good quality which is fine as far as it goes but which remains underdeveloped in detail, dimensionality or in the assessment offered. [7–11]
- L1 Make one or more simple observations about the impacts of tourism. Answer superficially or offer a generalised piece lacking a clear located example. Take a descriptive more than an evaluative approach. [1–6]

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### Economic transition

### 7 (a) With the help of examples, describe and briefly explain the role of the <u>primary</u> sector in economic development. [10]

There is a lot of potential to develop this in different directions. It is likely that a firm start to a response would be a definition of the primary sector as extractive industries (agriculture, fishing, forestry, mining). These activities both employ people and so generate income / taxes / export earnings, and produce products and raw materials for the secondary sector to process, refine, pack, convert and add value to, from sugar to iron ore. Some minerals provide energy, notably coal, but also oil, gas and uranium. These can be used to power development and provide energy for homes, businesses and industry, and also to trade. The primary sector also attracts investors and FDI, for example oil companies or China's recent interest in obtaining minerals from Africa to resource its growth.

Different approaches are creditable, e.g. a global perspective, or the careful use of a detailed example and making the explanatory links. Mark on overall quality, bearing in mind three bands of marks and levels of response: **1–4**, **5–7** and **8–10**. For a response without examples, **max. 6**. For no creditable response, **0**.

### (b) With reference to <u>one</u> country, assess the success of attempts to overcome some of the difficulties experienced in its social and economic development. [15]

An opportunity to use the case study from **4.4**. The management of development. The word **difficulties** should be interpreted permissively to allow candidates to make best use of the material they have. A number of types of difficulties can be envisaged, from a lack of finance and debt issues, to unpredicted outcomes or intervening events. Similarly **some of** also allows a judicious choice of what to include (and to leave out). Indicators of quality include a sense of reality, locational or spatial detail or a sense of place, and some consideration of what **success** means in this context.

### Candidates will probably:

- L3 Offer a convincing assessment which impresses by its perspective, treatment of at least two difficulties and strength of approach to the topic. Address both social and economic development effectively and structure the response well.
   [12–15]
- L2 Provide a response of sound quality overall, which may be good in parts, but which remains limited in detailed knowledge of the chosen country, understanding of development or the assessment made. If social or economic development is omitted, max. 10. [7–11]
- L1 Make one or more simple observations about the chosen country and/or difficulties in development, but fail to get to grips with the topic. Struggle to select and apply learned material in response to the question set. Answer generally and/or descriptively, offering little or no assessment. [1–6]

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### 8 (a) Fig. 2 shows spatial disparities in wealth in China, an NIC in Asia, between 1970 and 2000.

# Describe and explain the strengths and limitations of the information given in Fig. 2 for studying spatial disparities within a country. [10]

An evaluative approach is needed, using data skills and knowledge and understanding of regional (spatial) disparities and development. No specific knowledge of China is expected or should be assumed.

Possible strengths include:

- three different spatial measures
- dynamic analysis / trends (change over time)
- visual representation, readily interpretable
- other

and limitations include:

- index and measure(s) not given or explained
- no associated map or locational basis to say *where*
- no definition of terms, e.g. inland/coastal
- 'urban' could be a market town to the capital city, etc.
- dated data set change can be rapid
- other

Mark on overall quality, bearing in mind three bands of marks and levels of response: 1–4, 5–7 and 8–10. If only strengths or limitations, **max. 6**. For no response, or no creditable response, 0.

# (b) In what ways has the globalisation of industrial activity changed global patterns of production? [15]

Given the syllabus content, responses about transnational corporations (TNCs), global production networks (GPN), foreign direct investment (FDI) and the new international division of labour (NIDL) may be seen. So too may links between industrialisation in LEDCs and NICs and deindustrialisation in MEDCs. Not all of these are needed in any one response. Much depends on the examples taken.

#### Candidates will probably:

- L3 Provide an effective assessment of changes in global patterns of production caused by globalisation. Demonstrate strong conceptual understanding and a global perspective. Supply detailed supporting evidence, applying examples well. [12–15]
- L2 Produce a sound response, which lacks full development, but which may be good in some respects. Take a broad but shallow approach to globalisation and/or the changes, or a rather restricted one. May produce narrative in which, at the lower end, 'ways' remain embedded.
  [7–11]
- L1 Make a descriptive response about globalisation rather than an evaluative one. Write loosely showing little engagement with the idea of patterns of production at either the global scale or that of detail. Note-form and fragmentary responses remain in this level.