

## GEOGRAPHY

### Overall grade boundaries

#### Higher level

<b>Grade:</b>	1	2	3	4	5	6	7
<b>Mark range:</b>	0 - 12	13 - 26	27 - 36	37 - 48	49 - 59	60 - 71	72 - 100

#### Standard level

<b>Grade:</b>	1	2	3	4	5	6	7
<b>Mark range:</b>	0 - 12	13 - 26	27 - 36	37 - 47	48 - 59	60 - 71	72 - 100

### Higher level internal assessment

#### Component grade boundaries

<b>Grade:</b>	1	2	3	4	5	6	7
<b>Mark range:</b>	0 - 3	4 - 7	8 - 11	12 - 15	16 - 19	20 - 23	24 - 30

### The range and suitability of the work submitted

A wide range of topics was seen with a spread across physical and human geography. The best projects were on a local scale, easily managed with focused aims and involved the collection of primary data. Candidates were able to demonstrate observation and measurement in their fieldwork and to gather sufficient information for suitable analysis and relevant conclusions. Statistical treatment was common with Spearman being popular but other techniques are being used such as Mann Whitney, Simpson diversity, Chi squared and Nearest Neighbour. Many schools are using tried and tested fieldwork locations or centres which produce sound projects. The most popular topics tend to be based on rivers, coasts and settlements. It was clear that where candidates had carried out 'pilot studies', the information collected tended to be directly related to the topic under investigation and was in sufficient quantity and quality for analytical depth. Some projects are still too descriptive and these tend to be those with very broad aims and multiple hypotheses. There were very few inappropriate studies unrelated to the specification.

### Candidate performance against each criterion

Candidates are presenting more balanced investigations within the word limit and seem to have access to the criteria and follow the guidelines with due care and attention.

**Criterion A**

The best projects demonstrated well focused aims with appropriate hypotheses. Maps of the locational context are still variable; these should show the research area and the locations of the fieldwork sample points. The best projects had candidate generated maps (some hand-drawn) with normal map conventions such as scale, title, key, orientation. In the case of downloaded material, candidates must adapt the items with their own information. Weaker candidates often failed to link established theory to specific locations; they simply relied on large amounts of generic theory from textbooks often downloaded with no individual adaptation.

**Criterion B**

In many cases candidates gave clear descriptions of the methods used for data collection and were able to justify these (size of sample, equipment used, time and frequency of measurement, location of surveys, distance between sites etc). Many centres use data collection methods that are appropriate and accurate and sometimes inspired. In most situations where group work has been carried out the data produced are of high quality and in sufficient amounts for detailed analysis. Knowledge of sampling is still very weak in some centres. It is important to stress that data collection in the field may not supply all the information required for some investigations and therefore the inclusion of some "secondary data" is important. However, too much secondary data should be avoided as should descriptive investigations that rely heavily upon observation without measurement. It is advisable to test in advance, the viability of the techniques and equipment used in all types of data collection. This will avoid the collection of inadequate or unsuitable data.

**Criterion C**

There was great variation in the presentation of data, illustrations and written text. Far too many candidates are presenting graphical work of poor quality (narrow range of techniques, sometimes irrelevant, not integrated with text, not linked to locational context). Photographs should be referred to by a figure number in the text and clearly sourced and annotated to give relevance and meaning; maps should show scale, title, orientation and key and demonstrate a variety of mapping skills; graphs must be properly referenced, with relevant captions/labelled axes and correct titles. There was a competent and thorough use of statistical techniques in the best projects and, where appropriate, tests of significance and or critical values were correctly interpreted and understood.

**Criterion D**

The best candidates were able to present very clear interpretations of their results with strong references to their aim(s) hypothesis(es) and theory. In the best projects there was evidence of strong analytical explanations of the findings and the candidates revealed sound geographical understanding. Some of the best work included quite imaginative and sophisticated explanations for anomalies.

**Criterion E**

In some cases candidates had a very limited section in their projects for their conclusions and evaluations. This may have been due to the restrictions imposed by the 2500 word limit or simply because candidates ran out of time when presenting their reports. The best candidates gave very sound conclusions and discussed the limitations of their investigation and suggestions for extensions or alternative approaches.

Weaker candidates had very simplistic conclusions and the evaluation of methods was often not attempted. Only a small number of candidates took the opportunity in the evaluation and extension section to explore other ideas and factors that might have been relevant to their studies. In some cases the evaluation section became a list of problems encountered rather than looking for new ways of researching the topic.

## Recommendations for the teaching of future candidates

Encourage all candidates to produce hand drawn maps with orientation, scale and key and which show the sample sites. These may be based on downloaded materials but these are only acceptable if they are a basis for an overlay or used as a base map to which further information is added.

Cut down on non essential secondary data.

In the case of river studies (Bradshaw model) make sure that the sample sites are far enough apart to demonstrate changes downstream. Check all work for correct use of units for example depth of river in cm but width in m. Some of the discharge calculations were very wrong.

Candidates must be more critical of their methods and suggest alternatives, for example the use of clinometers to measure stream gradient. Would it be better to calculate average gradient from map contours at particular sites?

Encourage candidates to guess/hypothesize as to why a certain pattern or anomaly had emerged even if this goes against accepted theory. Candidates should be grounded in theory and general trends, but they should try and make sense of the world around them based on their own educated interpretations and to even think in a lateral way. Knowledge of sampling is still weak and not evident in many projects. Tests of significance in various statistical techniques are still not being addressed in detail.

The emphasis of the reports must be analytical.

In some cases the appendices are far too long and contain secondary data as well as all kinds of other information. A very limited use of the appendices should be made, for example a specimen questionnaire or data sheet.

The best candidates produce well-reasoned, balanced and critically argued studies which make interesting reading.

### Further comments

It is helpful to see a clear reference to the word count on the front cover. Teachers' comments are welcome and a clear marking matrix on each candidate is useful. Previous reports on IA performance are useful to schools and should contain guidance on how to improve the delivery of the internal assessment component.

Candidates must have access to the IA assessment criteria and marking scheme and ideally should produce projects in the same format as the A-E criteria with the word count in each section reflecting the mark bands. Encourage candidates to use a wide range of illustrations (maps, photographs, graphs, overlays, diagrams) to demonstrate their skills in graphical techniques. Offer help with statistical techniques and, where appropriate, explain tests of significance/critical values. Weaker candidates may require guidance on sampling techniques.

## Standard level internal assessment

### Component grade boundaries

<b>Grade:</b>	1	2	3	4	5	6	7
<b>Mark range:</b>	0 - 3	4 - 7	8 - 11	12 - 15	16 - 19	20 - 23	24 - 30

### The range and suitability of the work submitted

There was a wide range of work submitted. The majority were fieldwork based – and they were generally of better quality than the research assignments, which tended to lack focus; candidates tended to paraphrase and quote from resources with little or no work on the material, e.g. create new graphs and figures. Those that reached the highest mark-bands tended to be those when the nature of the topic chosen involved a specific investigation (examples: the relationship between waves and beach morphology, spheres of influence of towns in urban sprawl belt of a major city) using a wide range of data collection methods. The lowest achieving samples were observed when candidates were given free reign to choose any topic (this was noted in secondary data collection reports only) and as such produced irrelevant investigations. The more successful candidates had a clearly defined hypothesis(es) and were able to link this to relevant contemporary geographical theory. Bibliographies were lacking in some studies and sources weren't acknowledged on maps and diagrams which is concerning. Teachers did not always add their own annotations which is always a help for moderators. In some cases the candidates report had been photocopied and the quality was very poor or the colour of graphs and maps was missing.

An improvement was observed in several schools that have learnt from previous errors. For example more samples were seen to be adhering to the guidelines by using the criteria as a format for their IAs and using geography theory to support their investigations.

### Performance against each criterion

#### Criterion A

There was a tendency throughout to devote too much of the word count to this section, resulting in an unfocussed section, less words available for the latter parts of the report and the likelihood of exceeding the word count limit. Weaker candidates failed to clearly identify the study area, provided no map, and did not link the theory to the study area and the hypotheses. As noted in previous sessions there was a tendency to test simplistic hypotheses.

#### Criterion B

The higher achieving samples described and justified methods of data collection including explaining the sampling method used, but many of the Research Assignment reports had little or no discussion of the validity and reliability of the resources used – indeed, there was almost no attempt to identify the sources (they just appeared later on in the report). A good number of them did not bother to identify their sources. Some Samples had graphical illustrations straight from the internet without processing or showing the secondary data from which such graphs could be constructed. Fieldwork reports varied a lot.

The inclusion of questionnaires in the appendix was useful and done by many centres. Terminology was seldom technical: few used the terms systematic and stratified; the use of random was not justified. There was a tendency to leave out small but important information, e.g. if they did not use manual measuring instruments, they neglected to mention that an automatic data sensor was used.

In terms of the quantity of data, some centres collected a lot of variables which were not used by candidates – it would be better to collect fewer variables and increase the sample size.

More could be done to discuss the approach taken prior to the candidates undertaking the work so they can score better on this criterion.

### **Criterion C**

Data presentation/processing varied significantly. The strong samples had impressive variety of graphical illustrations. Some candidates produced very well crafted work with attention to detail throughout the report (table of contents, headers and footers, a proper bibliography, correctly titled and labelled figures/graphs/maps with short annotations, appropriate choices for presentation). Many candidates missed the opportunity to enable spatial comparison. (There were some excellent examples, however.) Black and white material should not be an impediment to a clear informative graph: careful consideration of line type and shading pattern in black and white is very effective. The issue of comparability between graphs was missed by many candidates – it is easily achieved and assists the candidate and the reader: using percentages rather than raw data to compare locations that have different sample sizes; placing a set of graphs on one or two pages rather than spread out over many; making sure that the scales on the x and y axes are held constant for a set of graphs showing data that can be compared; importantly, the same type of graph should be used for comparable data – there is no virtue in having a cone shape for one graph, a bar for the next and a line graph for another if they are all showing (e.g.) the same variable at different times, or comparable variables such as air pollutant concentrations.

Incorrect graphs were sometimes used, e.g. care needs to be taken when using pie graphs. When applying statistical techniques, few candidates used confidence levels to determine significance. Some candidates used incorrect techniques (e.g. care should be used with chi squared). In terms of presentation, some candidates did not take care with labelling axes.

There was some very good cross referencing from the text to figure and tables. Some of the downloaded maps however lacked sources, scales, orientation and even in some cases, the key. Too many candidates believe that downloading graphs and maps without editing or any input constitutes data presentation. When a candidate has adapted or modified via annotation or another technique, something downloaded it would be useful to acknowledge the level of input. Better projects processed data in a combination of hand-drawn/IT.

### **Criterion D**

It is essential that candidates keep the focus on their hypotheses or question and use the data effectively. The higher achieving candidates subjected their data to statistical test, determined significance level, and discussed in detail, explaining anomalies that arose from their interpretations. Weaker candidates had brief discussions of their findings. Some candidates did not score highly simply because they had used up the word count before reaching to this section. Usually, the more successful work integrated the data collected with the interpretation and analysis.

More able candidates generally did not have a large number of variables to deal with, but had good sample sizes; they were able to produce meaningful interpretation. Explanation for outcomes tended to be thin. Some candidates would have been better advised to place some material from an over length introduction into this section as a means of explaining outcomes.

### **Criterion E**

Whilst a good number of candidates provided a clear summary of the work, others introduced new material and analysis that should have been in the previous section. Evaluation of work was done reasonably by some centres, but ignored in other centres where the rest of the report had been of a good standard. Lower range samples tended to be simple by not evaluating methods used, not suggesting improvements or even making conclusions based on the data/information collected. As noted above, some gained no credit as they were over length. Future improvements tended to be simplistic but sensible (when offered: not many centres attempted this, yet it was easy to gain credit under this criterion.)

## **Recommendations for the teaching of future candidates**

- Studies should be focused around a well structured hypothesis or question with a clearly spatial context. It is also advisable to reduce the number of hypotheses being investigated
- Candidates should use the report format suggested by the IBO to organise their study and to help keep their focus on their hypotheses.
- It is better for candidates to make their analysis directly under or next to their data. It is more straight-forward for them to make references to the data and for the moderator to see the links.
- Better guidance on data presentation and the teaching of data presentation techniques is needed. Candidates should think carefully about how to present data so that it is easy for the reader to understand and compare like with like. Data should be presented in a variety of ways and should be relevant to the study (not every question in a survey for example).
- Candidates should keep to the word limit and be honest in the word count. Using annotated maps and photographs in the sections relating to criterion A and B to help candidates to reduce words in line with the word limit
- Don't collect too many variables but increase the sample size instead if possible.
- It is accepted that few studies will match theory, credit is gained by identifying and explaining anomalies based on geographical knowledge.
- Teachers should include notes on the allocation of marks in the samples.

### **Further comments**

Given that all IAs must from now onwards be based on fieldwork, centres must now find opportunities to carry out fieldwork activities for their Geography candidates. Those centres that have problems taking candidates out of the school will see there are opportunities to carry out activities on the school's grounds. Studies such as microclimates the school's sphere of influence are always interesting possibilities.

Teachers should be encouraged to always complete the back of the 3IA sheet to give the general context of the study as it gives a clear picture for purposes.

## Higher and standard level paper one

### Component grade boundaries

#### Higher level

<b>Grade:</b>	1	2	3	4	5	6	7
<b>Mark range:</b>	0 - 6	7 - 13	14 - 17	18 - 23	24 - 28	29 - 34	35 - 50

#### Standard level

<b>Grade:</b>	1	2	3	4	5	6	7
<b>Mark range:</b>	0 - 6	7 - 13	14 - 17	18 - 23	24 - 28	29 - 34	35 - 50

### General

All three questions proved equally popular with the candidates although Question 1 was probably the most favored. Candidates tended to score similarly on all three questions as none appeared to be more or less challenging than any other. On the whole it appeared to be a very accessible exam with most candidates having no problem understanding the command terms and the demands of the question. Those who tended to do poorly did so as a result of a lack of appropriate knowledge as opposed to a misinterpretation of the question posed. There were candidates that managed to score full marks on this paper.

### The areas of the programme and examination that appeared difficult for the candidates

Applying knowledge and understanding to some of the longer response questions proved difficult for some candidates especially 1d which asked for an examination of 'the interrelationships' between mortality and development. Some candidates tended to look from only one side i.e. how development impacted upon mortality but not vice versa. Drawing of maps still seemed to challenge a number of candidates; many drew population density maps with no reference on the map to the Core or Periphery. The use of case studies, although improving, was still minimalist in a number of cases e.g. Ethiopia or e.g. Africa, being tagged on to a generic response with no specific detail about the country/region example. Whilst there was some excellent use of statistics in some answers there were those who fabricated outrageously incorrect figures such as: '60% of Ethiopians being HIV positive'. It was a relief to see that fewer candidates are referring to Africa as an LEDC. There were some candidates that used acronyms that they had made up and it was unclear what they were referring to as they never wrote what is was out in full.

### The levels of knowledge, understanding and skill demonstrated

Most candidates seem well versed in how to describe patterns on graphs/maps with many achieving full marks for these types of questions. Many candidates were able to draw on a good knowledge of issues relating to gender, which allowed them to score well in a number of questions.

Most seemed competent in writing well-structured longer responses to the d type questions especially the question relating to GDP per capita, there were some excellent answers here. On the whole though many struggled to make the jump from purely descriptive responses to explanatory ones.

## The strengths and weaknesses of the candidates in the treatment of individual questions

### Question 1

- a) Some tended to explain as opposed to describe the structure and as a result did not score well. There were also quite a number of candidates who scored full marks on this question.
- b) Some excellent responses here showing a clear understanding of the issues facing women in some Sub-Saharan countries. Unfortunately some rather worrying incorrect statements popped up in a number of responses such as: in Sub Saharan Africa 'HIV- AIDS is a male disease', or 'women live longer as they do not work as hard as men'. Some answers also mentioned that it was a patriarchal society-favoring boys but then failed to take the next step explaining HOW this led to an unequal sex ratio. Few responses made direct reference to the actual 2025 pyramid itself.
- c) HIV/Malaria/SARS were the diseases that dominated most responses. On the whole excellent well-structured responses. At times candidates ignored the request for 3 impacts and listed as many as they could think of. This type of response was self-limiting as the impacts lacked development. On a number of rare occasions no disease was identified.
- d) As mentioned previously most candidates looked at the relationship between development and mortality, i.e. how development can impact upon the death rate but they did not look at the reverse relationship. There was also a tendency to ignore the different ways in which mortality can be measured with many looking just at the Crude Death Rate. It appears that candidates still find it difficult to develop responses that ask for interrelationships between different aspects of the core theme.

### Question 2

- a) Excellent responses with nearly all getting the full 3 marks.
- b) Some strong responses here with a factor that was clearly linked to a change in total fertility rates. Occasionally candidates just explained a factor that causes high fertility rates but did not link the factor to a change in the rate. Once again there were those who attempted to list as many factors as possible and ignored the questions request for two.
- c) As to be expected Brazil was the most commonly used example with maps ranging from excellent to very poor. On the whole though even with a poor map candidates scored well in describing the differences between the core and the periphery in their named country. The mark scheme also allowed some marks to be allocated to those responses that failed to produce a map; this prevented candidates from scoring zero on this question.



- d) This was on the whole well answered by many candidates. Many have a clear understanding of what a development indicator is and managed to write an analytical response to the question posed. Most took on a broad interpretation of development and looked at the strengths and weaknesses of GDP per capita as a measure of this. The strongest responses went on to suggest alternative composite indexes such as the HDI or the GINI index. There were many candidates who referred to the HDI and some non-economic indexes as a qualitative when in fact they are still quantitative.

### Question 3

- a) A small few just listed countries and the % undernourished with no comment on the spatial patterns at all, these responses were self-limiting as shown in the mark scheme. There were some minor issues with the final printed version of the map and if this impacted upon any response then the candidate was credited e.g. China's coastline appearing to have a higher level of undernourishment.
- b) As this question is similar to ones in previous exams - no problems.
- c) Responses to this question tended to be very good or very poor. Often the response was a generic look at the pros and cons of food aid with minimal links to how this impacts upon the alleviation of hunger. Case studies were also a bit thin in many cases with limited detail. There were some excellent responses that compared the emergency food aid to Haiti with a case study of longer-term food aid to a Sub-Saharan country.
- d) Some strong responses with an in depth understanding and good range of ways in which Carrying Capacity could be increased but few tackled how it could be decreased. Many candidates drew on the Malthus/Boserup debate in structuring their response. There did appear to be the misconception amongst some that Malthus did not see an increase in carrying capacity over time, which in effect is wrong. There were the odd number of candidates who had no idea what carrying capacity is, which is a bit worrying. Some decided to reinterpret the question and write all about China's One Child Policy, which meant they did poorly.

## Recommendations and guidance for the teaching of future candidates

- Advise the candidates to structure answers that ask for a specific number of factors, e.g. 3 economic impacts of a disease, in such a way that the three are clearly stated and in distinct paragraphs. This makes the response much easier to mark and the candidate is more likely to be credited with full marks, as opposed to a lengthy paragraph that looks at as many factors as they can think of.
- Continue to stress the different demands of a question that asks for 'describe' and one that asks for 'explain'.
- Encourage candidates not to see the three aspects of the core as three distinctly separate sections. This will help with answering questions that demand an examination of the interrelationships of different aspects.
- Accurate detailed information is needed regarding case studies on particular aspects of the course. This will also hopefully avoid some of the sweeping generalizations that are making their way into some of the responses, especially those that paint all countries in Africa as the same.

- Try to use case studies that are contemporary. Using a disease from the 17<sup>th</sup> Century and looking at the economic impacts of that, is not really what the course demands and the answer tends to become historical as opposed to geographical.
- Continue to encourage candidates to use sketch maps and diagrams in their responses where relevant.

## Higher and standard level paper two

### Component grade boundaries

#### Higher level

<b>Grade:</b>	1	2	3	4	5	6	7
<b>Mark range:</b>	0 - 11	12 - 22	23 - 30	31 - 38	39 - 47	48 - 55	56 - 80

#### Standard level

<b>Grade:</b>	1	2	3	4	5	6	7
<b>Mark range:</b>	0 - 5	6 - 11	12 - 15	16 - 19	20 - 24	25 - 28	29 - 40

### General comments

It is heartening to see that many teachers have clearly taken the advice of previous examination reports to help candidates improve their responses. In the structured questions, most candidates now respond to the details in the graphs and to requests for reasons. Many essays are now excellently constructed, with appropriate examples and illustrations; weaker attempts at essays tend to be overly descriptive and generalized.

### The areas of the programme and examination that appeared difficult for the candidates

The skills involved in producing annotated maps and diagrams (required in questions 4(b) and 11(b)) were poorly demonstrated by most candidates. Responses to Section C (Topographic Mapping) were especially disappointing. In their extended writing responses, many candidates provide descriptive case studies they have memorized from class, with little attempt to relate them to the specific demands of the particular question being answered. Such candidates generally struggled also with evaluative skills, which meant that their responses could not reach markbands E/F.

### The levels of knowledge, understanding and skills demonstrated

Examiners continue to be concerned about candidates' understanding of key geographical terms. Common terms were sometimes used in ways that revealed candidates' uncertainty about their precise meanings. This diminished the clarity of responses to many questions. Poorly defined terms included competence (of a river), sustainability, hole in the ozone layer, At the upper end there was some excellent knowledge and understanding, and clear reasoned arguments.

The best responses were enhanced by well-chosen, contemporary and detailed examples. It is a welcome development to see an increasing number of references to candidates' local areas, and to places where fieldwork has been carried out. Skills in drawing and annotating diagrams remain generally weak. The interpretation of command terms is improving. Many candidates have been well trained in the skills of graph interpretation and are including more references to data.

## The strengths and weaknesses of the candidates in the treatment of individual questions

### A1 Drainage basins and their management

- a) This was quite popular, with some strong, well-argued responses. A minority of candidates focused only on either physical or human factors. Some examples lacked specific geographic context, details and location and some only referred to one drainage basin. Weaker answers tended to describe the impacts of floods in a basin rather than the factors affecting flooding.
- b) This was a popular choice and (i) was usually well done. Surprisingly few candidates explained changes in particle shape and the role of attrition in (ii) or could define competence in (iii). In (iv), some used poor examples and some responses equated water utilization with water supply. Most candidates were able to provide examples at different scales.

### A2 Coasts and their management

- a) This was not very popular, though there were some strong responses, showing a good grasp of isostatic and eustatic processes and of related landforms. Discussion of causes tended to be weaker than discussion of effects. The weakest responses tended to limit themselves to the effects of "global warming" and on-going sea level rise.
- b) This was very popular and generally answered quite well. Most candidates did well on parts (i) and (ii) though the terminology used in (ii) was not always very precise. There was a wide range of approaches taken to (iii) and most answers were along appropriate lines. One common weakness was a failure to employ well-located examples, and to consider the economic value of the coastal area as a possible stimulus for protection. Weaker responses tended to simply describe coastal management strategies without considering why they might be necessary.

### A3 Arid environments and their management

- a) This was not a popular choice, and was rarely answered well. Few candidates gave detailed examples or case studies to support their claims.
- b) This was more popular, but not well answered. The term "desertification" in (i) and (ii) was sometimes confused with deserts. Answers to (iii) revealed a lack of clear focus on how a desert landscape is distinctive; many responses offered only a description of physical features and their formation, rather than any assemblage of forms, or any assessment of their distinctiveness. Very few responses included distinctive vegetation types.

#### A4 Lithospheric processes and hazards

- a) This was a very popular question and there were some excellent responses with a good range of examples. While some candidates organized their answers along MEDC/LEDC lines, others effectively analysed a variety of factors and often concluded that MEDC/LEDC divisions are overly simplistic in the context of earthquakes.

Weaker answers tended to concentrate only on human factors and a surprising number of responses referred to the predictability of earthquakes allowing for evacuation of population from the area. Examples were not always used as effectively as they might have been and often simply amounted to a description of impacts in an MEDC and an LEDC location.

- b) This was less popular. Part (i) was usually well done. Diagrams in part (ii) were often poorly drawn and/or erroneous, sometimes using the wrong type of plate boundary. Annotations were rarely added, and were sometimes unrelated to the question. Several responses simply labeled the diagrams rather than adding detailed annotations. Knowledge and understanding of “slow mass movements” in (iii) proved to be weak. Some candidates equated mass movements with volcanic activity or classed an earthquake as a mass movement. Very few responses included diagrams of mass movement types that would have enhanced their answers.

#### A5 Ecosystems and human activity

- a) This was not very popular. Answers tended to be vague and descriptive and lack an adequate depth of knowledge and understanding, especially with regard to the grassland ecosystem. Answers frequently failed to recognize the **differences** in impacts and simply described human impacts on each ecosystem. Specific case studies tended to be too generalized referring for example to whole biomes rather than specific locations within a biome.

- b) Part (b) was slightly more popular. Most candidates scored well on (i) and (ii) though in (ii) there was a tendency to simply describe the energy flows rather than explain them. In (iii) positive and negative feedback were often imperfectly understood. Answers to (iv) were very variable. There were some strong responses on sustainability in an ecosystem, but weaker answers found it difficult even to name and locate an ecosystem with a sufficient degree of precision.

#### A6 Climatic Hazards and Change

- a) This was a fairly popular choice and generally well answered, with some excellent examples. Weaker responses tended to include many unqualified generalizations and simply described differences in impacts without looking at the reasons for them.

- b) Also quite popular. There were some very strong answers displaying an admirable grasp of responses at different scales in part (iv). Sadly, a number of candidates confused ozone depletion with global warming. Even though CFCs do contribute to the enhanced greenhouse effect, very few candidates were able to make accurate comments on the precise processes involved. Disappointingly few candidates realised in (iv) that international efforts are long-standing and have been relatively successful.

**B7 Contemporary issues in geographical regions**

This section was answered by too few candidates for any reliable generalizations to be made.

**B8 Settlements**

As always, this section was very popular, with both questions attracting similar interest.

- a) In (a) most candidates used both MEDC and LEDC case studies, often with a commendable level of detail. Weaker candidates resorted to generalizations and often included material that had no relevance to the question as set. Weaker responses again tended to simply describe strategies and failed to evaluate their effectiveness.
- b) In (b) there was no evidence of any difficulty reading the maps, and almost all candidates offered competent answers to parts (i) and (ii). Part (iii), however, did pose problems for some candidates who found it difficult to (a) choose an appropriate model (Christaller being a common erroneous choice) and/or (b) relate this model to a real city. Stronger candidates tended to include a diagram of the relevant urban model and a map of their chosen city. Some of these maps were very impressive indeed. Weaker responses demonstrated only a vague knowledge of an urban model and therefore found comparison with their named city difficult.

**B9 Productive activities: aspects of change**

- a) Was not a popular question and performance was generally weak, with many candidates including innovations such as “mechanization” and “irrigation” that in most parts of the world wouldn’t be considered “recent”. Many candidates equated high-yielding varieties (HYVs) with genetically modified (GM) crops. This is only true in a very limited number of cases.
- b) Was also unpopular, and most responses were mediocre in standard though there were exceptions that examined a full range of locational factors in (iii) and included references to models of industrial location and the trend to the increasing footloose nature of modern industry. Most answers to (ii) and (iii) however tended to be descriptive, with poorly developed or inaccurate examples.

**B10 Globalization**

- a) This was quite a popular choice, though perhaps not quite as popular as 10 (b). There were some strong and mature answers to this question, with strong arguments presented both for and against the statement. Some candidates failed to include either trading blocs or TNCs. Others spent too long discussing tourism, without ever making any (necessary) link to global economic integration.
- b) This was a very popular question. Earlier parts were all answered strongly by most candidates. Candidates adopted a variety of approaches to (iv). The strongest responses offered convincing accounts of specific destinations, amply supported by factually accurate dates and data. Weaker responses tended to be superficial and revealed little understanding.

### C11 Topographic mapping

This was a moderately popular question. Despite significant improvements in many centres in topographic mapping skills, the performance on this question remained disappointing. Surprisingly few candidates scored full marks for (a). Most annotated maps in (b) were rudimentary, commonly with incorrect proportions and lacking names or conventions such as scale. If included, annotations tended to be brief, simplistic, and often strayed beyond physical geography (relief, drainage, natural vegetation) into cultivation, settlements and communications. Responses to (c) were generally on-target, and most candidates were able to gain some marks for (d) even though very few offered a well-structured analysis covering all the settlement on the map. Numerous responses described the settlement pattern well enough but failed to relate it to the landscape.

### Recommendations and guidance for the teaching of future candidates

Teachers should help candidates develop their ability to:-

- read questions carefully.
- write concisely.
- introductions to essay questions should be kept short and to the point.
- learn definitions of key geographical terms (eg. urban, erosion, globalization).
- practice describing and analysing data in all forms of maps, tables and graphs-improve the quality of annotated diagrams. Make diagrams/maps worthwhile and large enough to be seen, and complete with title, north arrow, scale and text, as appropriate.
- include named and located examples, even when these are not specifically required by the question. ("Holderness beach in England" is insufficient information.)
- write discursively ("discuss") which involves presenting alternative, and often contrary, points of view.
- read and interpret topographic maps, and write answers that quote map evidence.
- manage examination time by taking careful note of the mark weighting of questions to judge how long to spend on each part and how much to write.
- write examination answers under timed conditions.
- use compass direction when referring to maps rather than top/bottom/left/right

The new syllabus (first exams May 2011) includes contestable topics such as climate change and globalization. It is imperative that candidates see questions on these topics as opportunities to employ their knowledge, skills and understanding, and do not fall back on exhortative responses, no matter how strongly the latter might be felt.