

## 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

The range and suitability of the reports submitted was considerable. Most reports were based on very sound Geography and clearly formulated hypotheses. This gave candidates the scope to create a few original sub-hypotheses which helped to substantiate the teacher's hypotheses. Some of the coursework was truly outstanding looking at contemporary geographical issues and problems. The effects of distance on migration patterns, changing impacts on mangroves with distance from a tourist resort in a tropical location, delimitation of CBD's in original ways. There was lots of scope for correlations and the application of appropriate graphical and statistical techniques. There were a few centres who allowed candidates to research their own ideas and this generally seemed to result in greater inconsistencies in standards for those centres. There was an example of one centre where there was virtually no fieldwork, meaning there was a heavy reliance on secondary data which was inappropriate and disadvantaged the candidates.

## Candidate performance against each criterion

### **Aims and Hypotheses**

Generally the aims were clearly stated and most were narrow and clear in focus. Sometimes hypotheses are not clearly stated or sufficiently succinct. The hypothesis, for example, may be contained within a paragraph but the focus lacks clarity or is too generalised. The hypotheses need greater clarity and exposure. Most candidates, but not all, are justifying their hypotheses and some are rigorously following the assessment criteria and using sub-headings to ensure that they include all components. Sometimes the theoretical background was a little weak and so too the locational context. Many candidates are not using their own maps or manipulating downloaded maps effectively and the links to the theory were weak.

### **Methods of Data Collection**

In most cases the methods were clearly stated. In some cases the methods used were very good. Utilising modern scientific methods to assess water quality or developing good indices for urban fabric quality for example. Most candidates mentioned the type of sampling but not all made it clear that they understood the method. There are still inconsistencies in justification which perhaps need attention in some centres. The reasoning for using a particular method must be made clear.

### **Data Presentation and Processing**

The best candidates produced very detailed hand drawn and well annotated maps or computer generated maps which were expertly manipulated and more importantly they ensured that they were referred to. There were some good graphical techniques which showed variety in type and application. These were especially good when they showed correlations and lines of best fit. Most reports were substantiated by statistical techniques which were used effectively to process data and the results were clearly reflected in the analysis. Fewer candidates tested their significance. At the other end of the scale some of the maps were very poor and were directly downloaded, un-sourced and not referred to. Some candidates produce page after page of tables or graphs which are all exactly the same. It is better to put tabular data in an appendix and use a diversity of graphical techniques which can be analysed 'in situ'. Analysis of data several pages later reduces the impact of the report and indeed its quality.

### **Interpretation and Analysis**

In many reports the analysis of the data collected was concise and accurate and many were able to explain findings and include reasoned explanation. Too many, however, are still describing patterns or correlations but not trying to state why this might be the case. Some candidates are collecting data and presenting it but there is little analysis of it. The best reports also included a variety of interpretive skills – good annotated photographs to provide a visual impact or original choropleth maps compiled from collected data. This section is discriminating as it reveals the extent to which the research is clearly understood and when candidates refer to their aims, hypotheses and theory it underpins their knowledge and understanding. Weaker candidates found it challenging to explain anomalies and to move beyond a descriptive approach.

### Conclusion and Evaluation

A strong conclusion and evaluation are integral to a good report. A good report should consider the extent to which a hypothesis is valid. Appropriate evaluative comments helped to discriminate between weaker and stronger reports. The best candidates had sound, even imaginative, recommendations for improvements and alternative hypotheses which could have been tested.

In general the reports were good but some candidates submit reports which are unbalanced, e.g. with either too much or too little content for a particular criterion. Section As, for example, may be too long, with irrelevant material.

### Recommendations for the teaching of future candidates

- Hypotheses which are narrow in focus and are clearly discerned and are geographically pertinent
- Strengthening linkages between the locational context and theoretical background
- Maps must be hand drawn or, if downloaded, manipulated and ideally well labelled or annotated
- Making clear reference to sampling techniques in the methodology – ensuring that these are not a token gesture but are clearly understood. This should be reflected in the justification.
- Illustrations of methods used do help and improve the visual impact.
- Ensuring that all graphical techniques, statistical tests, maps and photographs are used in context – analysed, annotated and referred to. Their interpretation should not be in isolation from them.
- Analysis and interpretation should not only describe but also explain patterns and anomalies
- Evaluations should avoid attributing blame on equipment, weather or random acts of nature. Rather they should focus on weaknesses in sample size, assessing the appropriateness of techniques/methods and providing some recommendations for improvements.

### Further comments

In general the quality was commendable. Very few exceeded word limits and there were many reports which had very original ideas which were tested in the field. Many were very well illustrated and substantiated with good statistical, graphical and cartographic techniques. The criteria in most schools seem to have been followed closely hence the teachers deserve credit for their ideas and guidance. The fieldwork is reinforcing the program and clearly promoting the value of geography.

## 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

A wide range of work was received, but settlements and Population dominated the May 09 session, with a balance between fieldwork and research assignments. The most suitable were those that were fieldwork based linked to the settlements theme, such as studies of CBD, and Urban Heat Island. The least suitable were broad secondary research projects such as "An Analysis of the Aswan Dam" with no specific hypotheses or questions. In many centres critical links with relevant theory were extremely poor and hypotheses more simplistic or too broad or just not testable. In many cases the size of the data sample was minimal. Several studies, often more human-oriented, could have been more creative. A few schools submitted generic descriptive essays which were awkward to mark according to the criteria. Still some schools have problems with data and photographs being considered as data or have used an urban bus trip in which the candidates take pictures and write down observations along a "transect" and try to use these as data; there were also situations in which they get a talk from someone in a company or an institution and used that as their main source.

### Performance against each criterion

When sampling methods and statistical analyses were used correctly the candidates did very well in B and C. but still many schools showed poor data presentation and processing skills. For secondary data IAs many failed to justify or even question the source of their data collection, hence low performance in B. Teachers tended to over grade Criteria A, B, and in some cases C, especially in cases where the secondary data collected was not processed by the candidate at all. Criterion C was instead downloaded maps, graphs, tables which were copied and pasted from the web. Another difficulty observed in the candidate performance was against criterion D, largely due to failure to note anomalies.

#### Criterion A

Some examiners thought that quality of the hypotheses seemed to have definitely improved, but this was not the case in all centres, where many candidates used extremely simplistic and obvious hypotheses, or simply used too many, giving as a result very fragmented reports.

The spatial component seemed stronger with good use of maps. Maps used were either downloaded and then interacted with by candidates or were produced by the candidates themselves.

**Criterion B**

This was generally adequate in the fieldwork reports more so than the research assignments. In fieldwork most methods were well described and sampling techniques were explained but often the justification was missing. The research assignments did comment of the reliability of their sources but often failed to identify what data they were choosing to use from the sources. This still means some improvement from previous sessions. Some schools had candidates using only a questionnaire or an interview or a "visit" to the study area to observe (not record) as the source of data for hypothesis testing. Others used sampling techniques, fieldwork equipment and a variety of methods to collect quantitative data. Justification of methods used in the better pieces was done in a very straightforward and appropriate fashion.

**Criterion C**

Many centers had the tendency to produce a very limited range of graph types. On the whole a limited variety in the methods of data processing and presentation were used. There was definitely not enough use of maps to represent spatial data. The secondary data still needs to be manipulated by the candidate to score in this criterion. Use of varied statistical methods in many samples has been sadly lacking. A number of candidates have used the Spearman's Rank Correlation Coefficient but its use has been inappropriate with no consideration being given to the value of  $n$  which must be  $\geq 20$  or more. Also the candidates fail to link the statistical work with the written text and analysis.

**Criterion D**

This was on the whole well done by many of the candidates that scored well but it is still a problem when it does not come from the data, and this happened a lot in research assignments. Descriptions rather than proper analyses are still being received far too often.

**Criterion E**

Conclusions on the whole were included in most reports, as were evaluations. A few candidates effectively suggested possible improvements that could have been adopted, but in general terms the conclusions were at least adequate and there were some degree of evaluation.

**Recommendations for the teaching of future candidates**

- Reduce the number of hypotheses being investigated and make them more sophisticated and linked to theory.
- If the work is a Research Assignment then ensure that the candidates identify and justify why certain data is being collected. Also ensure that this data is then processed by the candidate.
- Candidates need to be made aware of the criteria and how they should weigh their work according to them.
- Candidates at this level must be made aware of a wider skills base than only line and bar Graphs and pie charts.

- Increase the scope of fieldwork techniques and the subsequent processing methods that they apply. For example, in a study to test the existence of an Urban Heat Island, a vegetation and building Density Index could also be carried out to complement the data generated from the temperatures taken.
- Map skills must go beyond just downloading maps. Candidates need to be trained in how to produce a wider variety of maps and or visual data presentation techniques, many opportunities to process and present data more effectively were lost by not using a simple choropleth map.
- Encourage a spatial and if field work, - localized component for investigations so that they are geographical in nature.
- Annotated photographs can be very useful but the candidates need to be guided in how and when to use them appropriately. Photographs and maps should be appropriately placed within the text and not under the appendix.
- Unjustified boxing, annotating and footnoting of information is not an acceptable method of dealing with the word count limitation and teachers will have to give their candidates more imaginative ideas. Candidates should be reminded to keep to the word limit and avoid using tables and boxes for part of their text. Some of the candidates exceeded the word count by over 700 words.
- Many teachers need help to be able to organize and guide fieldwork especially in terms of sampling, data collection, data processing and statistical techniques.
- It is necessary that teachers do make comments on pupils work and justify where the marks have been allocated. Still some centres do not do it.

## 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

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

Question 1 was the most popular with most candidates answering it. Question 2 seemed the second most popular and question three the least. On Average marks appeared to be fairly similar for questions 1 and 2, and slightly lower for question 3. Responses about the consequences of forced migration (1(d)) and the changes in food production per capita (3(d)) were often disappointing. A minority of candidates are still failing to pay attention to command terms, wasting time by unnecessarily explaining patterns in the first parts of questions. Some candidates still forget to include some quantification or reference to anomalies in descriptions. Often case studies were very generalized and lacked detail. Candidates often equated development with economic development alone. Some candidates were not able to develop fully those questions that asked for interrelations between aspects of the core theme. Many candidates struggled to develop descriptive answers into explanatory ones.

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

- The ability to read information shown on graphs and maps was sound.
- There appeared to be less candidates referring to Africa as a country.
- It was encouraging to see candidates including diagrams and/or maps in many responses, even though no question specifically required this.
- Many candidates displayed good knowledge of the DTM and corresponding population pyramids, forced migration from the Sudan and core periphery theory.

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

### Question 1

In general this question produced the strongest answers.

- a) A large number of candidates failed to include per live births in their definition.
- b) Many neglected to justify the identified relationships with quantification or anomalies, which allowed only a maximum of two marks.
- c) Some excellent responses here with detailed explanations, linking the factor identified to increasing or decreasing Infant Mortality Rates (IMR). A minority of candidates gave superficial responses that only looked at factors, which would affect mortality in general. There was also some irrelevant information that looked at reasons for increased rates of abortion, which would have no impact on IMR.
- d) A large number of candidates looked at voluntary migration, which limited their marks to band D, and below. Many gave lengthy accounts of the reasons behind the forced migration but neglected to answer the question and did not look at the consequences for the destination. Candidates, whose answers were based on historic events such as the Atlantic slave trade, were less successful in discussing the geographical consequences and the answers were for the most part descriptive.

### Question 2

- a) On the whole well answered, especially by candidates that referred to the Brandt line. Some candidates do not appear to know where the equator is, and made inaccurate references to northern and southern hemisphere in their descriptions. Many candidates did not include quantification in description, which prevented them from achieving maximum marks.
- b) This question was misunderstood by a minority of candidates who tried to explain the strengths and weaknesses of the choropleth map rather than the statistical indicator itself. The majority of candidates tended to perform very well with some excellent strengths and weaknesses of the indicator being explained.
- c) There was a wide range of approaches here, one of the most popular was the construction of population pyramids linked to the DTM or for an MEDC and/or LEDC. Answers tended to be descriptive as opposed to analytical. Often the relationship between the structure and development was not the focus of the answer. Drawn pyramids need to be annotated to be of value.
- d) Clear and accurate accounts of single countries, often employing maps, were counterbalanced by many weak responses which focused on different areas in a city or were lists of vague generalizations apparently based on guesswork. Brazil was the most popular example.

A minority of candidates looked at factors influencing the economic development of the country as a whole and ignored the request to examine variations these could not be credited above band B.



**Question 3**

- a) On the whole well answered but a minority of candidates listed the regions as they appeared on the graph with no attempt at grouping.
- b) Well answered, few candidates struggled to do well here.
- c) This question generated some excellent responses, though relatively few candidates explained clearly exactly what malnutrition means and some failed to signpost sufficiently the links with development especially in more developed regions.
- d) Responses with few exceptions were weak, with generalizations replacing facts and very few candidates convincingly focusing on per capita production as opposed to total production. Many candidates also ignored the instruction to consider changes over the past few decades. The best responses focused on two regions: one experiencing an increase per capita and the other a decrease per capita and explained why these changes in food production had taken place in the last thirty years or so.

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

- Some weaknesses still remain with examination technique.
- Accurate detailed factual information about case studies is required to reach the highest mark bands in many questions.
- Avoid sweeping generalizations such as 'Chinese kill their second child if it is a girl' or in 'Sub Saharan Africa people have more children because they are uneducated'. Such sweeping generalizations appear in many scripts and these need to be picked up in the classroom to teach a more tolerant understanding of issues.
- Case studies learned in class must be applied to the specific demands of a question and not simply regurgitated every time a particular key word such as migration appears in a question.
- Try to use contemporary case studies as this keeps the subject more relevant to the candidates and also prevents their analysis from becoming historical as opposed to geographical.
- Continue to encourage candidates to include sketch maps or diagrams in their answers. Remind them that annotations or a key need to be included for it to have value.
- Ensure candidates plan their answers before writing them, especially part d.

## 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

This examination session went smoothly. Feedback from centres via G2 forms was positive, with a majority of responses indicating that the question papers were appropriate and of a similar level of difficulty to last year. However, performance of SL candidates this session was slightly weaker than a year ago, especially for Paper Two. Performance of HL candidates was slightly stronger than last year.

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

Generally candidates' knowledge of all areas of the syllabus was sound and there were many relevant and detailed case studies used. It was pleasing, especially at HL to see relevant diagrams being used to enhance answers.

Important geographical terms - braiding, evapotranspiration, secondary hazards, urbanization, urban heat islands, urban regeneration - were not recognised or were misunderstood by some candidates.

Many candidates failed to draw sufficient evidence from the stimulus material provided such as the graphs and topographic map. Many responses demonstrated a good grasp of geographic knowledge but failed to apply it adequately to the specific demands of the question set.

Many responses were too generalized and lacked sufficient details, correct geographic terminology, examples and evidence.

Some candidates struggled with evaluative skills and were unable to access markbands E/F.

## The levels of knowledge, understanding and skills demonstrated

The best responses were enhanced by well-chosen, contemporary and detailed examples. There were fewer out-dated or inappropriate case studies. Skills in annotated diagrams are improving.

The interpretation of command terms was generally good at HL, less so at SL. Many candidates have been well trained in the skills of graph interpretation,

Geographic skills were generally well demonstrated in reading the maps and diagrams that accompanied the questions. Stronger responses cited data accurately and appropriately.

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

### A1 Drainage basins and their management

- a) Generally well answered and showing a good understanding. Better answers referred specifically to hydrographs. Weaker responses were often descriptive, instead of addressing processes. Using widely accepted technical terms would save time for some candidates.
- b) Braided channels were less frequently identified or well explained than either deltas or waterfalls. Some responses failed to focus on depositional landforms in (iv) or identify non-agricultural land uses related to depositional features.

### A2 Coasts and their management

- a) Many answers presented a clear argument against human interference but included little discussion of the pros and cons of natural evolution. The best responses included some good, detailed and well-chosen examples.
- b) Some generalized responses to (i) did not provide details or refer clearly to rates of erosion. (ii) was well done by those who chose a clear activity such as groyne construction, though some candidates confused deposition with erosion. Better responses to (ii) and (iii) included well-annotated diagrams of coastal process such as longshore drift. Responses to (iii) sometimes lacked sufficient evaluation.

### A3 Arid environments and their management

- a) Not a popular choice, with responses related to LEDCs demonstrating a better understanding than those relating to MEDCs. Weaker responses were unable to adequately define desertification and vulnerability.
- b) Knowledge of deflation and salinisation was disappointing. Responses to (iv) often concentrated exclusively on agriculture or tourism, but few included discussion of an adequate range of activities.

**A4 Lithospheric processes and hazards**

- a) This was one of the most popular questions and there were some excellent responses with a good range of examples. Weaker responses were unclear about the distinction between primary and secondary hazards, or simply described the relative effects of primary and secondary hazards without discussing their relative impacts.
- b) Terminology was often weak. Most candidates answered (i) and (ii) satisfactorily but island arc formation in (iii) was often confused with hotspots. Most candidates had an adequate knowledge of the benefits of volcanic activity, and many used examples effectively.

**A5 Ecosystems and human activity**

- a) This was most frequently attempted with reference to the tropical rain forest but with little reference to structure. Details of the types of changes to the system were often lacking.
- b) Many were unable to define biome in (i) but responses to (ii) were almost always correct. Diagrams for (iii) were appropriate but often disappointingly basic. In (iv) some responses included only limited reference to structure and functioning.

**A6 Climatic hazards and change**

- a) Was a very popular choice. The causes and effects of enhanced greenhouse effect were often vague and inaccurate. Benefits arising from the enhanced greenhouse effect were often ignored. Some candidates erroneously focused on acid rain or the depletion of the ozone layer. Some candidates saw this question as an invitation to write exhortative and sometimes passionate accounts about their committed positions regarding anthropogenic global warming.
- b) Many did not recognise an "urban heat island", though (ii) and (iii) were quite well answered. In (iv), El Nino events were not always well understood and the key term socio-economic was often ignored.

**B7 Contemporary issues in geographical regions**

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

**B8 Settlements**

- a) Was a popular choice and this was usually handled well with case studies of counter-urbanization, mainly in MEDCs. Although the environmental and economic consequences were usually well covered, little reference was made to the social consequences in either the source area in the city or the destination outside the city.
- b) Many could not define "urbanisation" (confusing it with rural-urban migration) but the pattern of urbanization was usually well described although anomalies were sometimes omitted. Some candidates misread the key on question 8 and wrote about 0% urbanisation rates in southern Asia. In both (i) and (ii) some candidates confused the North-South divide with the Equator. In (iii) urban regeneration strategies were usually well chosen but examples often lacked specific details of dates, exact

locations and figures. Some weak responses included erroneous strategies such as new towns.

Candidates who used their own city in question 8 demonstrated a much better sense of place than those who relied on textbook examples.

### **B9 Productive activities: aspects of change**

- a) Was unpopular and performance was weak.
- b) Was reasonably popular and usually handled quite well, with some thoughtful and well-reasoned responses to (iv). Weaker responses to (iv) tended to rely on simplistic (and often inaccurate) generalizations especially with reference to the role of women in LEDCs.

### **B10 Globalization**

- a) This was a popular choice. Many candidates did not focus sufficiently on development and simply presented a list of the positive and negative impacts of tourism, sometimes based on inappropriate MEDC examples. The best responses focused on development strategy and addressed economic, social, and environmental costs.
- b) Also a popular question. In (ii) trading blocs were a common choice, but their details and functioning were often not well understood. Responses to (iii) usually used an example effectively. Many candidates made no real effort to explain why missionary activities were being considered to be the same as globalization.

### **C11 Topographic mapping**

This was a moderately popular question. Despite significant improvements in many centres in topographic mapping skills, overall performance on this question remained disappointing. Overall, there is a discernible difference between the standard of map reading required in the early parts and of the map interpretation needed for the final two parts.

In (a) some candidates struggled using the scale. In (c) quite a few candidates mis-identified the canyons as mountains, presumably because there are lots of contours.

In (d) many candidates showed a limited understanding of the influence of relief on settlements and communications. Map evidence was often limited in responses. Map evidence was also often lacking in (e) where many candidates found it difficult to advance a third viable reason.

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

- Ensure that all questions and parts of questions are correctly numbered
- Ensure definitions of simple geographical terms (eg. urbanisation) are understood.
- Continue to practise describing and analysing data in all forms of maps, tables and graphs, and to improve the quality of annotated diagrams. Make diagrams/maps worthwhile and large enough to be seen.

- Learn command terms. Read and re-read the question before responding and refer back to the question when answering to avoid going off task.
- Work on map reading skills and interpretation, especially the use of map evidence, as distinct from speculation.
- Use local examples wherever possible since they will have greater meaning for candidates and result in a higher level of understanding
- Use up-to-date case studies and include specific location/s and details.
- Practice describing maps, diagrams and charts with reference to the data provided
- Improve examination time management by taking careful note of the mark weighting of questions to judge how much to write.
- Practice writing examination answers under timed conditions.

The new syllabus (first exams 2011) will deal explicitly with contestable topics like climate change and globalization. It is imperative that candidates see these as opportunities to employ knowledge, skills and understanding, as opposed to exhortative responses, no matter how strongly the latter might be felt.