May 2015 subject reports

Geography

Overall grade boundaries

Higher level

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 13	14 - 28	29 - 41	42 - 52	53 - 63	64 - 74	75 - 100

Standard level

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 13	14 - 28	29 - 38	39 - 49	50 - 62	63 - 73	74 - 100

Higher and standard level internal assessment

Higher Level component grade boundaries

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 3	4 - 7	8 - 12	13 - 16	17 - 20	21 - 24	25 - 30

Standard Level component grade boundaries

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 3	4 - 7	8 - 12	13 - 16	17 - 20	21 - 24	25 - 30

The range and suitability of the work submitted

As in previous sessions, candidates presented some very sophisticated reports, with many centres having arranged impressive fieldwork experiences for their candidates. The common thread in all the strongest investigations was that they had a clear spatial component.

Some caution is needed, when relying on outside field studies centres for internal assessment (IA) arrangements, to ensure that collaborative efforts are restricted to the formulation of the fieldwork question and collection of relevant data/information. All succeeding stages, including all analysis, must be the individual work of each candidate. No collaboration is permitted at this stage.

Common topics for fieldwork included earthquake hazard perception; urban land use; urban stress; urban microclimates; coasts (including sand dunes); rivers (usually based on the Bradshaw model); glacial environments; leisure and tourism (all part two options in the geography guide) as well as patterns in environmental quality and sustainability (part one, core theme topic 3). With a handful of noteworthy exceptions, fieldwork based on other sections of part one, or on the part three higher level extension, failed to provide the necessary opportunity for candidates to perform well.

It remains a serious concern that a small number of centres are submitting work that is closer to biology, sociology, economics or history than geography. Examples of less-than-ideal fieldwork include the study of customer response in retail or sporting centres; non-spatial studies of gender, religion, crime and fertility; and investigations that rely too heavily on secondary material and/or historical (rather than spatial) data. Centres submitting such work are not allowing candidates to demonstrate their true potential in terms of geography.

It is impossible to overstate the importance of ensuring that the fieldwork data/information collected allows for some in-depth spatial analysis.

Note that the syllabus definition of primary data/information does not include the collection of data via social media such as Facebook, or data collected via email or the internet. Reports deemed to contain no primary information are almost invariably awarded zero for all criteria except criterion D (written analysis) and criterion G (presentation), though some non-fieldwork reports may also receive partial credit for criterion A and criterion B.

Candidate performance against each criterion

Criterion A – Fieldwork question and geographic context

Familiarity with the syllabus meant that most candidates scored well for this criterion. The best questions were narrowly focused, had a spatial component, and allowed for the findings to be related to existing geographic theory, including any relevant geographic models. Some centres are still allowing individual candidates to investigate three or more different (unrelated) hypotheses. This led to unnecessary complications when it came to analysis.

Fieldwork questions that were vague, had obvious outcomes, or were based on overly simplistic questions, usually lead to low-scoring reports.

Geographical context and theory were generally sound but often needed to be more explicitly linked to the precise fieldwork question, not simply repeated verbatim from a text book.

Locational maps were better than earlier years, though there is still room for improvement. Maps need to be detailed, with annotations to show the exact locations of the fieldwork undertaken. The best maps were often hand drawn and always followed normal geographic conventions, including having an accurate scale. Note that it is NOT acceptable at this level to include maps labelled “not to scale”.

Almost all candidates related the fieldwork to the relevant part of the syllabus.

Teachers are reminded that candidates must give the source of all non-original material (including base maps). This requirement applies equally to photos, which should be credited to the original photographer; annotations must be the individual work of each individual candidate.

Criterion B – Method(s) of investigation

In most cases, methods were described, adequately justified, and yielded sufficient data of good quality to enable adequate interpretation and analysis.

Teachers are urged to select and discuss methods beforehand with candidates, taking into account the relevant geographic concepts. For example, in the case of questionnaire surveys, the discussion might consider the appropriate variables to be investigated, the appropriate sample size, the choice/selection of respondents, whether to use open or closed questions, and the range of possible answers expected, as well as the time and exact locations for the surveys.

While a small number of studies were very ambitious for the age range of IB candidates, others were (unfortunately) based on insufficient or deficient data.

Weaker candidates tended not to provide any justification and also failed to explain the sampling methods used in data collection. Many reports would have been improved if candidates had explained the details of how the sample size and locations were determined, including the selection method employed.

Stronger candidates included annotated photographs and illustrative diagrams to clarify the methods used.

The word “random” was used in many reports, though almost always incorrectly, when describing methods. “Random” should only be used in situations where the method involved an appropriate technique such as the use of random numbers.

The excessive use of tables (seemingly in an effort to circumvent word count restrictions) is not acceptable.

Criterion C – Quality and treatment of information collected

Most candidates followed the recommended format of presenting the fieldwork report. A small number of candidates failed to integrate criteria C and D, offering instead two entirely separate

sections. It is a requirement of the IA that criteria C and D be combined into a single, unified, coherent section.

Generally the information collected was relevant and appropriately displayed, with moderators reporting the use of a very wide range of maps, graphs, diagrams, photographs and other illustrations.

In weaker reports, the range of graphical techniques tended to be very narrow; units were often ignored (or confused), and illustrations failed to include any meaningful keys or titles. Some of the weakest reports displayed the data only in tables.

It has become less common to find reports where candidates included multiple pages of very similar graphs, one after the other, with no attempt to devise a more synthetic way of showing their results. Choosing appropriate techniques for showing and analysing data led to more succinct reports, making it far easier for candidates to see connections and relationships.

The key to successful IA fieldwork is to generate data/information that allows candidates to produce maps based on their findings. This guarantees that the report has a clear spatial focus. An increasing number of candidates are now placing their graphs/data directly onto background maps, making it much easier to visualize any spatial patterns that may exist.

The best reports included some truly outstanding techniques of data treatment and display, such as isopleth and choropleth maps of spatial trends and patterns, annotated photographs and other specialist diagrams (kite, rose) which easily exceeded the demands of the top markband for this criterion.

Many reports made effective use of statistical methods, such as Spearman's Rank Correlation and Chi-squared. In most cases, the choice of test was appropriate, and the calculations had been performed with accuracy. Statistical tests should not be used when the sample size is insufficient. It is important that candidates check the statistical significance of their findings; too many candidates failed to do this, or did so incorrectly. Statements like "there is a very weak correlation" or "there is some limited correlation" demonstrated a lack of understanding of the statistical tests involved.

Criterion D – Written analysis

Many candidates underperform with respect to this section.

The written analysis varied from superficial (mark band 3–4) to very detailed (mark band 9–10). Better candidates wrote perceptive analyses, including valid explanations, and quickly reached the top mark descriptors. They referred confidently to theory and to accompanying graphs and figures. Trends, spatial patterns and any anomalies found were identified, linked and discussed. Many top range samples used statistical testing very effectively. In the best reports these discussions were associated closely to the specific fieldwork question and the established geographic context.

Weaker candidates tended to resort to simplistic statements and descriptive summaries. Anomalies were quite often ignored with several candidates openly writing “these odd results

were left out of the analysis as they didn't fit the expected results", or "they couldn't be fitted on the map". Some weaker reports included multiple pages of raw data in tables but made little reference to the material. In general, weaker reports relied too much on describing the data and paid insufficient attention to offering an objective scientific analysis of the primary data collected.

Reports which investigated more than one hypothesis, and then presented separate analyses for each hypothesis, tended to score less well on this criteria than reports which integrated the discussion of results into a single section where the connections between hypotheses could be readily explored.

Criterion E – Conclusion

Most conclusions were concise and consistent with the analysis and the original fieldwork question.

Weaker candidates either wrote conclusions that were overly brief or conclusions that showed little or no connection to their fieldwork findings. A small number of candidates introduced new material into the conclusion; material that would have been better placed earlier in their analysis.

Criterion F – Evaluation

It is important for candidates to evaluate their fieldwork methodology in terms of the equipment used, size and selection of sample, location and time of surveys, quality and quantity of data.

Weaker projects tended to offer few or no appropriate recommendations for improvements or extensions.

Many candidates failed to consider how their original fieldwork question or hypotheses might be modified or improved. There were more recommendations for improvements to methods than for worthwhile extensions.

Better candidates were able to suggest ways of improving the study and often showed they had thought deeply about the potential or real flaws in the methods used.

The use of tables in this section can be quite effective, but candidates should be made aware that the words used still count towards the word limit.

Criterion G - Formal requirements

Very few reports exceeded the 2500-word limit, but it remains disappointing to moderators that many candidates fail to gain full marks for this criterion. Some reports lacked page numbers, and too many reports lacked a final check and proofread.

Candidates should take care to ensure that the word count stated on the report's title page or cover is correct. While it is helpful if word counts are provided for each sub-section, relying on automated word counts may give higher totals than the true "IB count", since the latter excludes titles, labels (though not annotations) on diagrams, and so on.

Standards of presentation are improving, but some candidates still missed full marks on account of poor referencing. The original source must be given for all non-original material, whether text, diagrams, maps or photos.

Some candidates failed to number and integrate illustrative material appropriately within the text. This requirement is meant to signpost the need for candidates to number (consecutively) all graphs, maps and photos, and then make clear reference to them in the main body of the report.

Some candidates included material in an appendix that was of central importance to the report and which should have been incorporated into the main text. Such material is not given credit by moderators.

The fieldwork reports of the very best candidates were invariably presented in an exemplary fashion.

Recommendations for the teaching of future candidates

Candidates should be encouraged to:

- Choose a tightly focused fieldwork question that has a spatial dimension (linked, if relevant, to a limited number of hypotheses).
- Link the fieldwork question clearly with the syllabus.
- Personalize maps and illustrations to show the location, choice of topic and/or sample points. Moderators appreciate candidate-generated maps, but expect to see a scale, orientation, key/legend, and relevant details.
- Justify the methods used and explain the sampling method(s) employed.
- Avoid using extensive tables in reports, especially in the sections for methods and evaluation.
- Incorporate a variety of appropriate graphical and mapping techniques to show and analyse your results. Label axes on graphs, and take care not to confuse units.
- Apply statistical tests, such as Spearman's Rank Correlation, only in situations where sufficient data has been collected, and always consider the significance of your findings.
- Focus in the analysis on interpreting and explaining (not just describing) results, paying special attention to any spatial patterns or trends identified.
- Number and place all illustrations appropriately within the text (NOT in an appendix), and refer to them throughout the written analysis.
- Study the assessment criteria and follow the recommended structure. Appendices should not include every questionnaire completed or secondary information.

Teachers should be encouraged to:

- Introduce candidates to the geographic skills listed in the geography guide (pages 15–18) well in advance of undertaking IA fieldwork. Candidates need to be taught a wide range of graphical techniques and simple statistical tools.
- Study the IA feedback to the centre written by previous moderators, and the IA section of the subject report published after each examination session.
- Help candidates appreciate the distinctions between any key terms that are relevant to

the fieldwork question.

- Help candidates choose an appropriate fieldwork question, and any related hypothesis or hypotheses. Try to choose fieldwork that will interest them. Moderators report that candidates who were really engaged with the fieldwork do much better than those who were not.
- Encourage candidates to draw good introductory maps, including well-chosen annotations specific to their chosen fieldwork question. Too many candidates are now relying on Google Maps and Google Earth images.
- Ensure that ample quantitative data is collected.
- Ensure that the work has a clear spatial component, and involves collecting data that the candidates can then represent on a map or maps.
- Ensure that candidates are familiar with the assessment criteria, placing particular emphasis on the descriptors at the highest end of the mark range.
- When submitting the sample of work for moderation, include comments on all reports explaining why particular marks have been awarded.
- In preparation for the electronic submission of IA, start to phase out the use of oversize and non-standard diagrams.

Further comments

The extraordinary range of fieldwork topics this session was impressive, and the general standard of work seen at moderation was encouraging. Most candidates have acquired valuable knowledge and a sound understanding of basic fieldwork techniques and how to conduct geographic investigations.

Moderators commend all the teachers and administrators involved in helping candidates to undertake IA fieldwork and further develop the essential skills of researching, processing and interpreting spatial data.

Higher and standard level paper one

Higher Level component grade boundaries

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 8	9 - 17	18 - 22	23 - 29	30 - 36	37 - 43	44 - 60

Standard Level component grade boundaries

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 8	9 - 17	18 - 22	23 - 29	30 - 36	37 - 43	44 - 60

The areas of the programme and examination which appeared difficult for the candidates

This year there were more issues with the use of command terms than we have had the last couple of sessions. “Explain” was interpreted as “describe” for one question which unfortunately limited many candidates’ responses. Some questions were also misread by quite a few candidates for example in question 4(a) many described the changes in regional ecological footprints instead of explaining the 2010 pattern. There were some issues with understanding the term debt relief which is surprising as it appears in the guide in both the core and the extension. Accurate quantification of the compound line graph and working out the fastest growth rates was challenging for a large number of candidates. There was limited development of the anti-Malthusian argument beyond the fact that we can now produce more food using technology.

The areas of the programme and examination in which candidates appeared well prepared

There was sound knowledge and understanding of the issues surrounding tropical rainforest preservation. On the whole, question 1 was very well answered with most candidates understanding the terminology and causes of population ageing. There was solid knowledge of the components of the Human Development Index (HDI) and some sound answers clearly distinguishing between the terms climate change and the enhanced greenhouse effect. On the whole, good time-management was shown by most candidates.

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

Section A

Question 1

(a) Most candidates were able to define the ratio and used the relevant age ranges but there were a few responses that incorrectly stated that it was the ratio of elderly to the rest of the population; they needed to state to the economically active age groups.

(b) It was quite rare to see a candidate get this right; the majority responded with Japan, which was odd as the answer is clearly China – it triples to Japan’s doubling.

(c) On the whole this was well answered with candidates clearly explaining factors that resulted in the percentage of elderly in a nation increasing. Each factor obviously needed to be valid to the five nations in the graph: either a reason for fertility falling, reducing the proportion of young cohorts, or the many possible reasons for life expectancies increasing across the five regions. The ageing of the “baby boomer” population was also accepted, along with the impact that anti-natal policies could have had on fertility. Explanations did not always stress the reasons for the increase in proportion of elderly in relation to the other age groups and this limited the development needed for the second mark.

(d) There were plenty of good academic responses with clear exemplification related to risky jobs, lifestyle choices such as drinking and smoking, health worker visits, military conscription, and valid biological reasons. However, many answers were superficial and often just incorrect: sexist statements such as “men are more stressed as they have to look after the family whilst the wife just stays at home and looks after the kids” were obviously not credited.

Question 2

(a) Most candidates were able to see the positive relationship but were less good at using the data to provide evidence of this or to show anomalies.

(b) On the whole this was well answered although some struggled to accurately identify the third component or they gave rather vague conceptual ideas of what is measured as opposed to the component.

(c) There were some strong responses with most candidates using the HDI although it was possible to use any composite index in this answer. Occasionally another index, for example the happy planet index or the gender empowerment index were used. Unfortunately it was clear that some candidates did not know what composite meant and their answers were self-limiting. Also some responses struggled to make their second reason distinct from the first.

(d) One of the weak areas of the paper. If candidates knew what debt relief was they had no problem getting full marks but in many responses there was much confusion with aid/loans going to the nations as opposed to being relieved of debt through the HIPC initiative. There were still a number of candidates referring to personal debt as opposed to national debt. The answers focusing on advantages tended to be stronger than those focusing on disadvantages. Most comments on dependency or corruption were not accurately explained/developed in relation to debt relief.

Question 3

(a) On the whole there were no problems describing the trends with a smaller increase in emissions until 2002 after which they increase significantly. The quantification, however, was mostly poorly done since many candidates read the upper boundary of the Asian plot rather than the compound values. This limited many responses to 2 of the 3 marks available.

(b) Mostly good answers with reference to the outsourcing of many polluting industries to elsewhere; increased awareness of the governments and individuals; targets linked to agreements like the Kyoto protocol; increased usage of renewables like wind or alternatives like nuclear; etc. Some responses were a bit minimalistic and lacked development or failed to identify two reasons that were distinct.

(c) A few very clear full mark responses that accurately described what each of these are and how they differ or are linked. Unfortunately many responses struggled to correctly understand what the enhanced greenhouse effect is, with much confusion about radiation and irrelevant reference to ozone. Often they were accurately described but the distinguishing characteristics were not presented clearly.

Question 4

(a) This was well done but there were still errors by some candidates.

(b) If the question was read correctly this was a very accessible 4 marks for most candidates. Unfortunately a large number did not read the question properly and simply described the pattern with no explanations OR examined the changes between 1975 and 2010.

(c) This was well done with sound knowledge and understanding of the anti-Malthusian view but explanation and exemplification were often thin. Many responses felt the need to outline the Malthusian view as well which was a waste of time and writing space. Most went for improvement in food supply by technology but there were some good responses that dealt with shift to alternatives, conservation and population control.

Section B

Question 5

This was the most popular of the three questions with some very strong responses. There was sound knowledge of the biome and the issues linked to its biodiversity. Many made good use of examples and it was nice to see areas beyond the Amazon being used by some centres such as Borneo and the Democratic Republic of the Congo. Many of the weaker scripts were characterized by a lack of specific geographical location. The arguments for preserving were generally very well written with sound use of examples effectively linked to biodiversity. Arguments such as medical research, ecotourism, ecological stability, indigenous culture/lifestyle and stewardship were the most common. The arguments against preservation tended to be a little thinner and were mainly associated with the use of the forest as an economic resource, food source, energy alternative with biofuels and area for housing of expanding population. Most common issues were the lack of focus on biodiversity and very vague use of case study material.

Question 6

This question was the second most popular and we saw some excellent responses that were each quite unique in how they tackled the question. They tended to demonstrate a good working knowledge of the MDGs related to gender and were able to effectively evaluate how international migration has allowed these targets to be either more of less achievable. It was possible for responses to answer the question without referring to a specific female migration but rather to look at the impacts of international migration in the country of origin in terms of

remittances leading to girls education, change in family power structures etc. Unfortunately there some very general and superficial responses characterized by a lack of understanding of both the goals and international migration. Weaker responses lacked focus and often had no exemplification. There were often some overly simplistic responses that showed ignorance towards the diversity of gender issues that exist in some regions such as the Middle East.

Question 7

This question was rarely chosen which was odd given this was the 2015 exam and the MDGs which underline the entire core officially ended this year. Those that did tackle this question tended to have sound knowledge and understanding of both the MDGs and how specific countries or regions had either made or had not made progress in relation to some of the goals. The better answers were willing to describe AND explain why progress was fast/slow. Country comparisons seemed more common than regional comparisons although there were a few who very skilfully compared South East Asia with Sub-Saharan Africa. Weaker answers tended to be very superficial with very poor knowledge of the MDGs and the targets. Some had limited knowledge on specific regions and compared MEDCs with LEDCs which was less appropriate.

Recommendations and guidance for the teaching of future candidates

Teachers are recommended to:

- Stress the importance of the quantification skills required in interpretation of graphs, figures etc.
- Encourage candidates to illustrate their answers with up to date, well informed specific geographical examples.
- Work through past exam papers with candidates AND prepare candidates for any possible use of the command terms; for example a map question with an “explain” question as opposed to “describe”.
- Ensure that all sections of the guide are covered so that candidates do not lose marks unnecessarily (as happened with the debt relief question this session).
- Encourage candidates to indicate where any extra work is to be found – not outside the lines.

Higher and standard level paper two

Higher Level component grade boundaries

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 7	8 - 15	16 - 23	24 - 29	30 - 35	36 - 41	42 - 60

Standard Level component grade boundaries

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 6	7 - 12	13 - 15	16 - 19	20 - 24	25 - 28	29 - 40

General comments

Far too many candidates, especially at standard level, attempted both questions in their selected options. Some, but not all, then subsequently scored one out. This inevitably led to self-penalization due to time pressure.

The areas of the programme and examination which appeared difficult for the candidates

The use and understanding of appropriate geographical terminology was a problem for many candidates. For example: hazard risk, rehabilitation response, agricultural subsidies, food availability and security, political factors

Candidates are often unable to differentiate between pattern and trend, using the terms interchangeably in the interpretation of graphs and maps.

Concepts and terms used in physical geography were often weakly understood: for example, the open systems concept; the relationship between landforms and processes; and understanding of the value of storm hydrographs.

For the structured questions worth 4 or 6 marks (part b), candidates were often content to give simplistic/outline answers; they failed to support and develop their answers to achieve full marks.

Many candidates struggled to provide adequate essay (part c) responses. They often struggled to provide extended, reasoned explanations. There was a lack of structure, with many generalized and descriptive accounts; many did not move beyond agreeing/disagreeing with the statement, with limited justification and evaluation. Case studies and examples were sometimes very out-dated (e.g. the Irish Potato Famine) or lacked relevance to the question (e.g. the Aral Sea for mismanagement of groundwater resources)

The areas of the programme and examination in which candidates appeared well prepared

There was improvement in the use and understanding of geographical terminology, and in responding to command terms used in the questions.

There was improvement in graph and map interpretation, and making use of the data.

There was an improvement in the quality and variety of diagrams used by candidates to support their answers.

In the structured questions, candidates seemed more aware of how marks were allocated, and were able to correlate the available marks with the length and depth of answer required.

Most candidates were aware that they needed to use examples/case studies to develop their answers.

Stronger candidates demonstrated good, detailed case study knowledge; they demonstrated clear understanding and were able to effectively discuss and evaluate the extended response questions. The examples used were current, relevant and detailed, and responses showed evidence of critical thinking, evaluation and reasoned conclusion.

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

Question 1

(a) No problems.

(b) There was some confusion over the diagram and the arrow, which showed conflict between water for agriculture and ecosystems. Reasons for conflict were stated, but often not developed sufficiently for the second mark.

(c) This was generally poorly answered, with many candidates not understanding how a drainage basin functions as an open system, with inputs, outputs, stores and transfers. Many were unable to define the word “open system” beyond the fact that it has inputs and outputs.

(d) There was a general lack of knowledge and understanding regarding floodplain landforms, and the contribution of erosion and deposition in their formation. Meanders, ox-bow lakes and levees were popular. It was worrying that some candidates thought that waterfalls are a feature of floodplains. The command word “compare” was largely ignored, and there was little evaluation of the relative roles of erosion and deposition in the formation of landforms.

Question 2

(a)(i) Many candidates did not give a full definition of “stream discharge”, omitting reference to time/cumecs.

(a)(ii) Most candidates correctly named the river transport processes, but often failed to give descriptive detail to gain full marks.

(b) Most candidates understood the concept of a hydrograph, but were often let down by the explanation of how hydrographs might be used to forecast and manage flooding.

There were some very good sketches of hydrographs, although annotations would have helped answer the question more succinctly.

(c) Most candidates were able to describe groundwater resources and outline some impacts of mismanagement. Many, however, were unable to develop their explanation of why mismanagement had occurred. The Aral Sea is not really considered to be a groundwater store; those that used this example told the story of mismanagement rather than focusing on the question. The very strongest responses used case studies with factual detail and figures illustrating the costs of abuse of groundwater resources to society and the environment.

Question 3

(a) Many candidates experienced some difficulty in describing the global distribution of oceans, although this is in the syllabus. Nearly all were able to name three oceans and the majority commented on how much of the planet was covered in water. However few made comments on distribution between hemispheres and hardly any discussed seasonal variations. Many tried to link distribution to ocean currents and the conveyor belt system. There were some good location maps drawn showing the oceans relative to the named continents but this was only worth 1 mark.

(b) Stronger candidates were able to discuss the formation of different coastal landforms, although not all were able to fully explain the influence of wind. This was particularly the case when making the connection between wind, wave strength and erosional processes. Candidates were much stronger on longshore drift and associated landforms, and the development of sand dunes. There were some good, labeled diagrams of the formation of a spit but also some very poor ones, without labels or arrows in the correct direction.

(c) Candidates were generally strong on the reasons for conflicts over oceanic resources but use of case study examples was sometimes weak. Most were able to refer to an oceanic resource other than fishing, such as oil and discussed the issues regarding sovereignty rights and EEZs. Most candidates focused on the Arctic Ocean and South China Sea as examples but details were often lacking and in some cases inaccurate.

Question 4

(a) The focus of the question was subaerial processes, although many referred erroneously to marine processes. Mass movement was rarely mentioned.

(b) Some reasonable attempts were made to identify the cliff management and sources of conflict, but in most cases there was not enough development. Strong candidates identified possible conflicts and different interest groups with several referring to actual examples.

(c) Candidates were able to identify different methods of marine conservation and recognized the reasons for the need and likely trends in the future. However,

knowledge of case studies was variable, often lacking specific detail. Alternatives to conservation were often not considered.

Question 5

(a)(i) Some candidates had difficulty in identifying the relevant erosional process: wind/abrasion

(a)(ii) Many candidates could name a water-formed feature (wadi or canyon were the most common) but few could give detailed explanations of the formation. A description, or sketch, of the water-formed landform was also required.

(b) Straightforward question, but some responses lacked full development to be awarded full marks

(c) Quite well answered, with reference to a range of activities such as agriculture, tourism or mineral extraction. In many answers the concept of sustainability remained implicit.

Question 6

(a)(i) No problems.

(a)(ii) Answers were sometimes unable to develop beyond the obvious and some failed to focus on economic reasons.

(b) Some answers failed to focus on physical challenges. Many answers gave relevant points but these were often not developed; some gave several brief ideas rather than two developed physical challenges.

(c) Some responses were well done with effective use of case studies. Weaker answers sometimes focused on issues related to water supply in general and not to desertification. Other weak answers discussed the general challenges of living in arid areas. The understanding of “desertification” was not clear in these cases. Some candidates referred to desertification in areas that were not extreme environments, such as the tropical rainforest, which was not acceptable. Some answers were strong on causes or strong on examination of impacts but few did both.

Question 7

(a) The vast majority had no problem with this.

(b) This posed few problems. Few, however, realized that the 2002-2012 figure was an average and that events such as Hurricane Katrina could have skewed the results. Most referred to improved prediction and increased preparedness.

(c) Most could explain the difference between the two terms, often with examples and case studies. There was some confusion over the terms. Reconstruction was stronger than rehabilitation.

(d) A few candidates referred to both earthquakes and volcanoes, and if both are used only the first one mentioned was credited. The large majority chose earthquakes. To access the higher markbands, explanation should refer to both physical factors, such as tectonic margins, and human factors such as population distribution and contrasting levels of economic development. The physical factors were not detailed enough to show knowledge and understanding and the human factors were generalized and descriptive.

Question 8

(a)(i) Definitions had to refer to the need for outside help to gain the mark.

(a)(ii) When referring to the long-term actions, each point needed to be further developed to gain the additional mark. For example, candidates mentioned land-use planning but answers were generalized without development.

(b) The question refers to a human-induced hazard event, such as Chernobyl or a major oil spill. Note that Fukushima is a problem triggered by a natural hazard and is not really relevant. Many described the event and discussed the impacts rather than examining the causes.

(c) This was generally well answered. The best candidates used comparative case studies from, for example, Australia and a Sahel country.

Question 9

(a) Generally well answered, although many candidates give rather basic statements such as “Asia has increased” rather than identifying, for example, a specific steep increase in a given range of years.

(b) Each reason needed to be developed in order to gain full marks; many candidates gave a reason, but with little/no development.

(c) This question was generally well answered, with effective use of examples. However, many candidates reached only band D, as they described one or two sustainable tourist strategies but failed to give any substantial evaluation, or examine the statement “examine the extent to which ...”.

Question 10

(a) The definitions were often incomplete, especially “ecotourism”, which should refer to local communities. Heritage tourism was often poorly defined: it refers to history and not to culture. Exemplification or development was needed for the second mark in each case.

(b) Each political factor needed to be developed/exemplified in order to gain full marks. Many answers included economic factors rather than political ones, or the answer did not focus on “participation and success in international sport”.

(c) Stronger candidates gave good detailed answers using London Olympics, Sochi Winter Olympics, Rio World Cup and others. Some examples were not so current, such as Atlanta and Munich Olympics. Weaker candidates presented answers that tended to be descriptive and did not focus enough on the costs and the benefits in discussing the statement.

Question 11

(a) Candidates had few problems with describing the graph. Many gained full marks, although some omitted the fact that this is a negative/inverse relationship, or did not recognize an anomaly.

(b) Generally well answered.

(c) This was quite well answered. For those who were clear on the term “agricultural subsidies”, the question and answer was straightforward and scored full marks, with many using the example of the European Common Agricultural Policy. Weaker responses referred to the Green Revolution or to GM crops in a general way.

(d) This question was generally well answered with effective use of detailed examples. Weaker candidates focused only on physical factors. Most examples were on Ethiopia, Kenya, Somalia and the Horn of Africa. Some gave a very good explanation of what constitutes a famine. However there were two shortcomings: either, candidates did not focus on the relative importance of the human and physical factors; or, the description of the famine and the factors was very generic.

The Irish Potato Famine and Chinese Famine are not considered relevant and recent, and it is alarming that these examples are still being taught. Some candidates tried to use the aftermath of the Haiti (or even the Nepal) earthquake that, although marginally relevant, did not lend itself to the depth and detail required.

Question 12

(a) This was quite well answered and spatial patterns well described. Weaker answers were more general. Full marks were awarded only if all levels of food availability were referred to.

(b) This question caused many problems. Many candidates were not able to distinguish between food availability and security, and many were confused or too brief. This question was worth 6 marks, and while the answer did not need to be balanced, it had to cover both terms and distinguish between them.

(c) There were some good responses, but many candidates focused on diffusion and barriers without much reference to the impacts on diseases. Some good case studies were included, with the recent Ebola outbreak being well used for both diffusion and effect of barriers.

Question 13

(a)(i) This posed relatively few problems. Six-figure grid references were used to pin-point the activities with precision.

(a)(ii) This was generally well answered.

(b) Generally quite well answered, with candidates referring, for example, to noise and air pollution from the quarries, or congestion due to the grid street pattern. However, weak reference to map evidence was common, as was reference to urban stress that could not have been identified from the map.

(c) This question elicited some good responses and was quite well answered, with use of detailed and relevant case studies. Good answers looked at differing impacts in different cities. However there were many very unstructured responses in which it was difficult to follow the impacts. Very weak answers discussed migration into a country, or the impacts on the losing region.

Question 14

(a) Quite well answered, although there was some confusion regarding the two types of movement. “Urbanization” was not credited for centripetal movement. Each type of movement must be developed to gain full marks.

(b) There were some problems regarding understanding of the term “internal structure of the CBD”. Each feature needed to be developed/explained for full marks. Pedestrian numbers, and lack of residential housing, for example, are not structure.

(c) This was quite well answered with effective use of examples. Note that the question referred to two different strategies – some candidates referred to different cities using similar strategies. Strong candidates showed good knowledge of some common case studies, e.g. Curitiba, but often knowledge was generalized. The weakest did not discuss strategies, but topics such as “suburbanization”. There was limited attempt to evaluate the success of management strategies.

Recommendations and guidance for the teaching of future candidates

Teachers are recommended to:

- Ensure that candidates understand the rubric and demands of the examination: several candidates answered both questions in an option; only one can be credited.
- Make sure candidates allocate the appropriate amount of time per question. Emphasize the importance of reading the question carefully and focusing on it.
- Use the syllabus as a checklist for definitions, such as discharge, disaster, etc.
- Emphasize the need to use detailed, accurate examples in answers and ensure that case studies are relatively recent.
- Guide candidates to structure their answers clearly and logically. For the extended response questions encourage candidates to discuss and evaluate, rather than merely

describe.
- Enable constant access to past papers for practice, and encourage candidates to think critically if they wish to achieve the highest mark bands.
- Emphasize the need for clear handwriting.

Candidates are recommended to:

- Practice describing data patterns in graphs, maps, and tables, and use compass directions when referring to maps, rather than left/right/top/bottom.
- Clearly identify each point when questions ask for a specific number of points, and do not give a generalized account of more points than required. Each point should be developed in order to gain full marks.
- Think beyond the simplistic best/worst scenarios and reflect upon the complexities of the situations they are describing in their responses. Their answers will also have greater depth of understanding if they remember that the majority of the situations they are describing are dynamic and there is almost always a degree of uncertainty.

Unless instructed, there is usually no link between parts (a) and (b) on a question. Candidates who try and incorporate the information from the map or graph into part (b), or even (c) are likely to gain lower marks.

Higher level paper three

Component grade boundaries

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 4	5 - 9	10 - 13	14 - 15	16 - 18	19 - 20	21 - 25

General comments

Overall, the content of the course, and the nature of the assessment, are both much better understood than in 2011. The integration of current affairs relevant to global interactions is occurring in the answers of the best candidates. This shows that the geography course remains dynamic, relevant and interesting to both teachers and candidates. There are now far fewer teachers writing in their feedback that the topics are too difficult for candidates at this level (as happened when the current geography guide was first introduced).

The areas of the programme and examination which appeared difficult for the candidates

Very few candidates attempted question 1. This suggests that there is still widespread insecurity surrounding the topic of global core and periphery. This is a pity because the rise of emerging economies – such as the BRIC and MINT nations – is an interesting contemporary geographical theme and one which is widely reported on in the media.

Question 2(b) asked candidates to discuss the view that "National governments cannot control global interactions." There were many mediocre responses to this, showing that candidates found it difficult to talk about some very pertinent issues such as the role the IMF and World Bank play in dictating the economic policies that borrowing governments must adopt. Instead, essays tended to be overly focused on simplistic (and at times almost "cartoonish") accounts of North Korea and Europe.

The areas of the programme and examination in which candidates appeared well prepared

Most candidates understood that a good synthetic performance involves weaving together several case studies to build an argument (which sometimes takes the form of a debate for and against a proposition). The use of supporting evidence was generally very sound too.

Particular topics and case studies which appeared in many candidates' work included:

- McDonald's menus and what they tell us about the adoption and adaptation of "global culture".
- The isolationism of North Korean and China (although, as mentioned above, these case studies are rarely delivered with much sophistication or nuanced understanding. North Korea has attempted to interact with South Korea on occasion, but this is rarely mentioned by candidates).
- The discovery and subsequent cultural erosion of tribes such as the Xingu and Dani.
- Migration between the USA and Mexico.
- Issues for the European Union.
- Bolivia's nationalization policies.
- Bangalore's call centres.

Indeed, candidates who want to produce work that "stands out from the crowd" would do well to make sure they have additional case studies to use in addition to these (for instance, no candidate wrote about Philippines call centres, despite the fact they recently eclipsed India in economic value). Alternatively, they could carry out additional research into these popular case studies and attempt to assess them in more rigorous, nuanced or surprising ways.

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

Question 1

(a) Most candidates understood clearly the difference between transboundary pollution and transnational waste movement. Relevant examples were used, although the detail and accuracy was variable. Very few used Fukushima as a case study, preferring to use the 30-year-old Chernobyl example instead. This is a pity and clearly goes against the ethos of the course which is stated on page 13 of the geography guide. The best answers understood the significance of the command term "distinguish" and were awarded full marks accordingly.

(b) A handful of excellent answers showed deep understanding of how global interactions have modified the previously binary world system (the "north/south" or "core/periphery" of the immediate post-war period). They wrote about the evolution of a far more complex world, beginning with the rise of the Asian Tigers in the 1950s. Other strong answers dealt with the statement on a flow-by-flow basis and understood that a country like China could be regarded as being part of an economic core but had chosen to remain peripheral to social networks such as Facebook. Weaker answers tended to focus mainly on isolated tribes and the Sahel as non-globalized places. Done well, however, band D was still achievable through the use of this narrow approach.

Question 2

(a) The best answers explained what was meant by consumer culture, as opposed to "culture" in general. Candidates were often well-versed in geographical terminology and could write with confidence about cultural diffusion and imperialism. In contrast, some candidates produced a "common sense" response that a candidate of any subject might have written. These answers focused on the power of advertising and branding, often at great length. Sometimes, this was sufficient for band C or even D.

(b) This popular question allowed a wide range of themes to be synthesized. The change in the power of national governments was often thoroughly interrogated by the strongest candidates. At the upper end, there was frank acknowledgement that opting-out of economic globalization is not a realistic strategy for any leading industrialized nation, but that degrees of control over migration and information flows are still achievable.

Question 3

(a) Outsourcing is a term that still causes confusion and was poorly understood by a surprising number of candidates. Typically, they used vague language, such as: "outsourcing is when a country uses the work force in another country". Outsourcing is defined by the geography guide as "The concept of taking internal company functions and paying an outside firm to handle them. Outsourcing is done to save money, improve quality or free company resources for other activities." Within the context of a

geography examination paper (as opposed to business management), it may safely be assumed that a company which outsources its operations overseas becomes, by default, what we would term a TNC. The geography guide defines a TNC as "a firm that owns or controls productive operations in more than one country through foreign direct investment". Significant global outsourcing relationships create a partnership (or global interaction) wherein both companies play a role in productive control. The client company may pay for training, or invest in the transfer of technology to the supplier company. The exam question also asked candidates to address the "importance" of the relationship for the Client Company, or TNC. Profitability was a key theme to explore here, linked with various low-cost factors of production. Well-developed examples were frequently supplied, usually Bangalore (call centres) or China (manufacturing). A few mentioned Bangladesh. Some of the best answers analysed the declining of outsourcing as a result of recent "reshoring" by risk-averse companies. Weaker candidates sometimes drifted off course and provided a lengthy cost-benefit analysis of outsourcing for India, rather than writing about the importance of outsourcing for companies.

(b) The best answers were carefully structured around a range of possible factors, not just international migration, and used strong supporting evidence. Some of the strongest candidates offered a final substantiated judgement of whether migration is, or is not, the dominant factor. A minority of candidates misunderstood where the emphasis of the essay statement lies. They discussed whether migration was responsible for a loss, or gain, of culture. This approach was often hard to carry through and many floundered when it came to arguing coherently whether the presence of a diaspora community in a world city represents a loss, or gain, of "distinctive local cultures".

Recommendations and guidance for the teaching of future candidates

Some centres may need to strengthen their teaching of the following:

- Outsourcing, foreign direct investment and the economic geographies this gives rise to (and reshoring might be factored in as an optional contemporary updating of the topic)
- The evolution of the global core and periphery, its dynamic nature, and the way its structure varies according to which kinds of global interaction are being studied. The changing role of national governments and the power they may exercise in relation to the increase in global interactions merits more discussion. It will spark the interest of candidates too, because it is relevant to current issues, ranging from "Grexit" and "Brexit" to ISIS.
- A sounder grasp of the role of financial flows, the IMF and the WTO, would benefit many candidates.

Further work needs to be done helping mid-ability candidates to work towards creating a more substantial final evaluation of their chosen argument or topic. The table below offers guidance

as to what constitute a mediocre or good conclusion for two of this examination's part (b) essays.

Unsubstantiated / assertive final evaluation	**Substantiated final evaluation (conceptual thinking or evidence-based reasoning)**
Question 1(b) "Due to global interactions, there is no longer a global periphery." Discuss this statement.	
Having looked at both sides of the question, on balance I believe that there is still a periphery, it is just smaller. The Dani tribe and the North Koreans are cut off from the rest of the world and this makes them peripheral to everyone else who is the global core. They will continue to be cut off and poor and are not part of the shrinking world, so are not globalized.	In conclusion, many places and people are still peripheral economically, especially areas like the Sahel. And even though some countries like Bangladesh are highly involved in global trade, the low wages people are paid means that they are peripheral as consumers. Arguably, the spread of mobiles and internet means that almost everywhere is now connected to global flows of information, making the idea of core and periphery redundant. However, China has deliberately made itself peripheral to global data flows using its Firewall. Overall, the variety of different global interactions means that many places can be peripheral in some ways, yet are core nations in other respects.
Question 2(b) "National governments cannot control global interactions." Discuss this statement.	
On the one hand, yes, national governments have lost control due to the power of TNCs, the EU and their inability to stop migration. On the other hand, no. It is still possible to be in control as North Korea has shown by cutting itself off. But on balance, yes, I think we have lost control. Global interactions can no longer be controlled by most governments.	Finally, I think that the answer to this question depends on what we mean by global interactions. It is hard for any country to develop economically without trading with other countries. At which point, a degree of control is lost and dependency on others begins. Some countries, like Germany, are far better at staying in control of the situation than, say Greece! But global interactions also includes things that can be controlled through laws, like migration and internet access. So some interactions can be controlled more easily than others by governments. But because people can still find ways to break these laws, by migrating or using websites illegally, on balance I have to agree with the statement.