November 2012 subject reports

GEOGRAPHY

Overall grade boundaries

Higher Level

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 12	13 - 26	27 - 40	41 - 51	52 - 62	63 - 72	73 - 100

Standard Level

Grade:	1	2	3	4	5	6	7
Mark range:	0 -13	14 - 27	28 - 40	41 - 51	52 - 63	64 - 74	75 - 100

Higher and standard level internal assessment

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

The work submitted for moderation covered a very wide range of topics. The strongest investigations all had a clear spatial component.

The most common topics selected were related to: Patterns in environmental quality and sustainability (part one, core theme topic 3); Freshwater – issues and conflicts (part two, option A); Oceans and their coastal margins (part two, option B); Leisure, sport and tourism (part two, option E); and Urban environments (part two, option G). Fieldwork based on topics in the core and the part three higher level

extension (global interactions) often did not reach the same high standards as most of the work related to part two, though there were exceptions.

In this session, very few centres submitted any internal assessment (IA) reports that were entirely based on secondary information and therefore inappropriate for IA fieldwork. A very small minority of candidates chose barely geographical investigations, or linked their fieldwork to the wrong unit of the subject guide. The fact that the candidates must state the link to the subject guide in the introduction is meant to prevent this from happening.

It was especially pleasing to see new fieldwork topics being attempted, many with considerable success. These included studies analysing the location and availability of leisure facilities in communities of different population size, proximity to major city and levels of prosperity. Some of the newer topics, especially those that are socially-responsible and environmentally-responsible, required demanding fieldwork, often with a degree of originality in the methods employed. The resulting first-hand accounts showed that the experience had challenged candidates to consider all manner of irregularities, inequalities and injustices. While work of this nature is unlikely to be appropriate for all centres, it is encouraging to see that IB geography teachers remain so committed to facilitating candidate investigations of such important contemporary issues.

In most centres, candidates worked in groups to collect suitable primary data. Most teachers do now offer candidates an appropriate level of guidance, and do not extend their assistance to the stages of report writing beyond the collation of data. Most centres are now allowing candidates some choice in either the topic chosen and/or the hypotheses to be investigated.

The emphasis of written reports tended to be analytical, though some weaker candidates are still far too dependent on purely descriptive and/or theoretical information which is not based on the empirical evidence they have collected.

On an administrative note, the reports submitted for moderation must be original (not photocopies) with true colours and clear details, so that the moderator assesses any diagrams, maps and photos as the candidate intended. Where group work has been undertaken as a class or with another school, teachers should indicate the nature and extent of teacher involvement and direction.

Candidate performance against each criterion

Criterion A – Fieldwork question and geographic context

Most work had a well-focused fieldwork question. In many cases, this was followed by appropriate hypotheses. Most candidates are now writing introductions in which background theory is linked to the precise geographical context where the study is being undertaken.

The best work tended to have fieldwork questions that were narrowly focused and appropriate with manageable hypotheses. Fieldwork questions that were vague, had obvious outcomes, or were based on overly simplistic questions inevitably led to poorly developed reports.

It is important to find a spatial focus for the fieldwork and use techniques of data representation that can reveal any spatial patterns in the fieldwork results. Non-spatial topics usually score badly.

Almost all candidates stated the area of the syllabus that was relevant to their fieldwork question, some adding a comment outlining the topic's importance and its possible connections to other parts of the syllabus as well.

Many of the maps used in fieldwork reports, including those used in the introduction, remained disappointing. The best hand-drawn maps were far superior to almost all computer-assisted maps. There is very little point in including a downloaded map unless it is annotated to show the key places relevant to the study being undertaken. Adding personalized annotations to maps allows candidates to demonstrate additional skills and to offer some background material in an easy-to-absorb way. This can be a very effective way to help set the scene and describe the geographic context.

The judicious use of colour on maps is becoming a lost art; candidates should pay more attention to their choice of colours.

Almost all candidates are now providing the source for any non-original maps or diagrams used in reports. The source should be placed as near as possible to the diagram or map, rather than only being given in end notes. All sources should also be included in the bibliography.

A small number of centres attempted fieldwork that proved too ambitious to complete successfully. The feasibility of fieldwork projects should be carefully considered before it is undertaken. In some cases, a pilot study may be needed to help reveal unexpected challenges and allow for the fieldwork topic or techniques to be modified.

Criterion B – Method(s) of investigation

In most cases, methods were not only described but well justified, and yielded sufficient data in both quality and quantity to enable adequate interpretation and analysis (often including the use of statistical tests).

Using a table to show methods is not a good idea, especially since most of the words used in this fashion will still count towards the final word count. On the other hand, incorporating annotated photographs into the report can be a very useful way to describe the methods used.

Weaker reports lacked sufficient justification for the methods used. Ideally, methods should be agreed through discussion, taking into account the relevant geographic concepts. For example, in the case of river velocity, the discussion might consider whether the appropriate variable to measure is mean surface velocity or maximum sub-surface velocity.

At the other end of the spectrum, some methods were exceptionally well thought-out and some were innovative. For example, in several cases, candidates had devised their own completely original "scales" to quantify a variable such as "environmental quality" or "urban stress" when it played a central role in their investigation.

Many reports would be improved if candidates explained precisely how the sample size was determined, as well as the selection method employed.

In cases where questionnaires were used, the methods section should incorporate some justification for the precise questions asked, together with clear reference to the number of responses, time of survey and choice of survey points. A copy of the questionnaire should be included in the appendix.

Criterion C – Quality and treatment of information collected

A wide range of maps, graphs, diagrams, photographs and other illustrations were used. Some could have been easily and significantly improved by adding labels and annotations.

The best reports included some truly outstanding techniques of data treatment and display, which easily exceeded the demands of the top markband for this criterion.

Many reports used statistical methods such as Spearman's Rank Correlation and Chi-squared. However, these tests are not always appropriate and should certainly not be used when sample size is smaller than the test's minimum requirements. Most candidates did attempt to show an understanding of how to assess statistical significance.

Many reports are illustrated by outstanding graphical illustrations and statistical maps (isolines, choropleths). Producing maps based on findings is a key to success in IA fieldwork as it 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 resulting spatial patterns.

Weaker candidates continue to offer multiple, repetitive graphs on dozens of pages, making it virtually impossible to determine any possible spatial connections between them.

For this criterion, the choice of scales and use of colour remain two (relative) weaknesses. Where graphs are to be compared, it is essential that scales are identical. In the case of quantitative maps, such as choropleth maps, it is important that the colours chosen help the viewer discern which the highest class is and how the classes are ordered, for example, by grading several tones of a single colour from dark (= more) to light (= less).

It is not appropriate to use more than one method to show precisely the same data (for example, using both a pie chart and a histogram for identical data). Candidates should be encouraged to select the best method for their purpose, and briefly justify their choice.

All graphical techniques must be strictly relevant and fully integrated into the main body of text.

Criterion D – Written analysis

The written analysis was the most variable section of reports. Better candidates wrote perceptive analyses, including valid explanations, and quickly reached the top mark descriptors. They clearly referred to findings by actually quoting graphs and figures. Trends and spatial patterns, as well as

anomalies found, were identified, linked and discussed. In the best reports these discussions were associated strongly to the specific fieldwork question and the established geographical theory/context.

Weaker candidates tended to resort to simplistic statements and descriptive summaries. In the very worst of cases, they largely ignored the data they had collected.

Reports which investigated more than one hypothesis and then presented separate analyses for each tended to score less well for 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 did refer back to the original fieldwork question and were based on the evidence as well as consistent with the results and analysis. Weaker candidates sometimes introduced new material into their conclusions and included information which might have been better placed in their analysis.

Criterion F – Evaluation

Most candidates were able to make some sensible evaluations of methods, with valid suggestions for improvements. However, this criterion is designed to make candidates think beyond any problems resulting from the weather, teachers and classmates, and evaluate the fieldwork process in terms of such things as sample size, choice of location/s and the quality and quantity of data/information collected.

Fewer candidates also considered how the original fieldwork question or hypothesis might be modified or improved. There were more recommendations for improvements to methods than for worthwhile extensions.

Criterion G – Formal requirements

It is disappointing that many candidates still fail to gain full marks for this criterion. This criterion allows candidates to pick up four easy marks and all should do so.

Teachers are reminded of the need to check word limits carefully and to award zero marks for this criterion if the 2,500 word limit is exceeded. Almost all reports did respect the 2,500 word limit. Most candidates wrote their total word count on the front cover of their report. Some candidates also (helpfully) gave the number of words for each section of the report.

It is important that all material pertaining to criteria C and D be interwoven into a single section of the report. Some candidates failed to number all illustrations sequentially, or included material in the appendix that was of central importance to the report and which should have been incorporated into the main text. Centres are reminded that moderators are not required to read the appendix, so any diagrams or maps essential to the study must be included in the main body of the report.

Recommendations and guidance for the teaching of future candidates

Candidates should be encouraged to:

- Ensure they have a tightly focused fieldwork question and (if relevant) a strictly limited number of hypotheses. Note that where hypotheses are used, there is no requirement that more than one hypothesis be investigated.
- Avoid simplistic or "futuristic" questions, and ensure that any hypotheses are testable statements.
- Use an annotated sketch-map to show the location, choice of topic and/or sample points. Maps from Google Earth or similar sources must be given added value by the addition of individual, carefully chosen, annotations.
- Seek to incorporate a variety of relevant graphical techniques; reports using only one or two kinds of diagrams rarely score well.
- Avoid simplistic, descriptive analysis and focus on trying to interpret and explain results, especially any spatial patterns or trends identified, referring regularly to the original fieldwork question and any hypotheses.
- Quote and refer to their graphs and images during the analysis. This will help to avoid overly descriptive analyses.
- Structure reports in line with the recommendations in the subject guide and in line with the suggestions given for the number of words allocated to each section.

Teachers should be encouraged to:

- Help candidates choose an appropriate fieldwork question, and any related hypothesis or hypotheses. The basis of good fieldwork is choosing an appropriate, well-focused fieldwork question, and putting it in context by providing relevant details of such elements as climate, soils, relief and communications (these depend on the precise fieldwork question chosen).
- Ensure that the fieldwork study involves the collection of sufficient quantitative data.
- Ensure that the work has a clear spatial component, and involves collecting data that the candidates can then represent on a map or maps.
- Make sure that candidates can justify the methods of data collection.
- Ensure that candidates are familiar with the assessment criteria and the structure of reports.
- Add comments to all reports (either on the report or as a separate matrix or mark sheet) explaining why particular marks have been awarded.
- Allocate some class time prior to fieldwork to the teaching of techniques for representing and

analysing data. In this process, emphasis should be placed on ensuring that normal conventions are followed for the choice of scales, symbols, colours and other aspects of formal presentation.

Further comments

There is no doubt about the value of good geographical fieldwork. The current syllabus and assessment criteria continue to work well in this regard. The general standard of work seen during moderation was encouraging. Most candidates are acquiring a valuable knowledge and a sound understanding of their fieldwork investigations.

Thanks are due to all the teachers concerned for helping candidates undertake such valuable work and to further develop their candidates' skills in researching, processing and interpreting empirical data.

Higher and standard level paper one

Component grade boundaries

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 9	10 - 18	19 - 25	26 - 31	32 - 38	39 - 44	45 - 60

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

Some candidates still confused explanation with description and wrote long detailed accounts with reasons and causes when only simple description of patterns was required. Some were not well versed in the definitions that are provided in the geography guide, for example, ecological footprint. Specific subject areas that candidates seemed to struggle with were: birth ratio, trade and market access as a tool to reduce disparities, evaluating a located strategy designed to reduce resource consumption, and writing a well-structured and exemplified answer in the extended response question.

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

The majority of candidates were well versed in identifying spatial patterns on a map and most remembered to quantify their description. There was sound knowledge of positive outcomes for the receiving region in migration and sound knowledge of the possible consequences of climate change. Good candidates were able to produce reasonable answers to the section B (extended) written response, and there was an impressive choice of contemporary case study materials across responses.

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

Section A

Question 1

a) Good descriptions but some answers lacked reference to the data/figures provided and hence could not get the maximum mark.

b) Quite well answered but weaker responses struggled to come up with three distinct or three positive impacts.

c) There were a few good responses that correctly identified what birth ratio is, making reference to examples: China, India and Afghanistan. Answers commented on the social and economic reasons for the imbalance. Unfortunately however, there were many who failed to show any

knowledge and understanding of birth ratio and instead wrote about birth rates, thus not answering the question. Birth ratio is in the guide and needs to be covered as a concept in the gender and change section. Some candidates also need to take care when writing as responses would often argue that girls are aborted because they are weaker, or unable to work as hard as boys. This is obviously an incorrect perception that may be leading to sex selective abortions, not a factual truth, and this is how it should be explained in responses.

Question 2

a) (i) No problems for most candidates.
(ii) No problems for most candidates, some inaccuracies.

b) The best responses focused on reasons why the target of US $ 1 a day will not be met by some nations/regions. Reasons linked to debt, the global recession, disease, or a natural disaster, were the most popular. It was disheartening to see some candidates still refer to the "country of Africa" in their answers here. There were many responses that just generically explained why countries are not developing but did not explain their reason in relation to this particular target. This limited the marks awarded.

c) The best answers demonstrated excellent knowledge and understanding of trade and market access: explanations with specific geographical exemplification such as trade blocs, economic communities and cooperative unions. These then linked their knowledge to the reduction of disparities via investment, job creation, infrastructural development and even looked at non-economic elements of disparities. However, for many candidates this question did prove difficult and some candidates struggled to move beyond just writing about the advantages of having a TNC in a low-income country. This was not the question.

Question 3

a) Straightforward but the lack of units on the graph seemed to confuse some candidates.

b) Most responses had excellent knowledge and understanding of how deforestation leads to global warming with reference to forests being carbon sinks or increases via burning and how the increase in greenhouse gases led to the trapping of long wave radiation.

c) Most candidates could include valid consequences. They were able to identify a consequence such as rising sea levels and give an explanation of how this occurred. Weaker responses were characterized by very limited explanation. There were some who drifted from the environmental element of the question and explained the impacts on human activity, which was self-limiting.

Question 4

a) The majority of candidates were familiar with the definition in the guide.

b) The relationship was easily identified but weaker responses offered no quantification.

c) (i) The best answers had a valid, located (local or national) strategy with explanations of how the consumption of a named resource (water and fossil fuels being the most popular) could be reduced. Some failed to identify the resource being conserved or the location of the strategy to be evaluated and as such could not be awarded any marks.

(ii) The best answers gave valid reasons, with explanations clearly linked to the response given in (c) (i). Unfortunately one or two ignored the "**either**" and wrote one positive and one negative explanation, for which only the better of the two received credit.

Section B

No specific question appeared to be more popular with the candidates.

Question 5

There were a number of candidates who looked at the question through the neo-Malthusian and Boserup debate with the better ones able to refer these theories to the concept of environmental sustainability. These argued that from the Malthusian point of view, population control was required and from the Boserupian point of view, technology and innovations were far more important. Again the better candidates backed up their argument with reference to case studies with China, India and Singapore frequently used. Some good answers took a regional focus and looked at environmental stability before and after population control with China being a popular choice here. The weakest scripts had very little knowledge and understanding of sustainability and were largely superficial or marginal with no examples or case studies. In the poorest answers there was little application and important aspects of the question were ignored (such as a discussion on population control). In almost all cases population control was exclusively considered to be control of birth rates.

Question 6

There were some very good answers that gave comment on the reasons why oil was an issue looking at reserves, prices and geopolitical considerations. These used this as a springboard to look at the alternatives to oil and usually focusing on renewables. There was some good discussion of the importance of these energy sources and their relative merits. Candidates were usually well versed in exemplar materials. These stronger answers were well developed and covered most aspects of the question allowing the candidates to demonstrate and to discuss the shifting significance (production/consumption) of other important energy sources. These answers also made successful attempts to evaluate the different fuel options. Poor answers were characterized by weak knowledge and understanding and often with far too much emphasis on oil with hardly anything on the changing importance of other major energy sources. The weakest candidates failed to offer objective, detailed and specific examples/case studies with little attempt at any application.

Question 7

This question prompted some very good discussion in places. Better answers demonstrated some grasp of the economic development in their selected case studies and then proceeded to

comment on the success in removing disparities. Some looked in a positive fashion at scale and made the point that development in the NICs and BRICS countries had reduced global disparities by spreading wealth and jobs. It was often pointed out that the development had however been limited at a spatial and societal scale with regions lacking development and the benefits being confined to particular classes and genders. There were good examples given: China, Brazil and Malaysia being but a few. Some argued that development per se did not mean that disparities would be reduced and cited countries that were seen as "developed" having a great number of disparities (the USA and Australia being popular examples). Weaker responses were characterized by uncertain/partial knowledge and understanding of development. The term was not explained in detail and often from a very narrow point of view; examples and case studies, where included, were very limited in detail/relevance. These weaker candidates made little attempt at application and their answers did not address the question in depth. The evaluations of social and economic disparities relating to development were not discussed beyond a marginal/superficial level.

Recommendations and guidance for the teaching of future candidates

- Candidates must read the questions with care and identify key command terms such as describe, explain, examine, discuss. Too many candidates are giving explanations when simple description is all that is required. This is especially important in the essays as well, many candidates ignored the "other than oil" part of question six and wrote excellent but completely irrelevant responses. Teachers should stress the importance of reading and re-reading the questions so that they are not misinterpreted.

- Candidates need to be advised on how best to use the quantitative data in the graphs and maps in their answers.

- Candidates should be made aware that the definitions provided in the syllabus are crucial to assisting them in their examinations.

- Candidates need to plan their use of time with care as often the extended response was rushed. Essay plans are being used and this habit should be encouraged.

- It is vital that clear reference is made to the exact location: some candidates referred to "in this country" or "over here"; examiners have no way of knowing what or where the location is.

- There was quite extensive use of obscure acronyms in some responses and unless these were given in full it was difficult to know what was being written about.

- Candidates should know examples at a range of scales – local to international – and be able to apply them effectively to a question, not just reproduce them.

- Teachers should try to get away from dated textbook examples and, where possible, use up-to-date and relevant examples.

Higher and standard level paper two

Component grade boundaries

Higher level

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 6	7 - 12	13 - 21	22 - 27	28 - 33	34 - 39	40 - 60

Standard level

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

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

The weakest responses were those on physical geography, especially landforms and processes in extreme environments (arid and cold) and ocean ridges, although there was good knowledge and understanding of fluvial elements, ENSO and hurricanes.

The areas that seemed most difficult for candidates were those where they were asked to define concepts precisely. Similarly marks were lost in elaboration of statements and explaining and analysing problems, and reaching conclusions.

Unfortunately many did not follow the instructions of the questions and preferred to take a “here is everything I know about...” approach. A significant weakness lay in the application of relevant examples and case studies related to the actual questions asked: many candidates were content to reproduce examples learned in class with limited reference to the question. On the other hand a large number had insufficient factual detail to support general statements.

Map work skills remained weak across both levels and scale continued to be a problem for some with Goa, Venice, Africa, and the London Olympics being cited as countries. Sketch maps (when used) tended to be very poorly drawn and in many cases were almost unidentifiable.

Rubric infringements were unfortunately found in a few papers, especially at standard level.

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

The interpretation of command terms had improved, for example, with more effort being made to "evaluate" and give a more balanced view. The Leisure, sport and tourism questions were popular, as were the questions on Hazards and disasters, as well as Urban environments, and Freshwater – issues and conflicts.

Well-chosen, contemporary and detailed examples which were used effectively, demonstrating excellent knowledge and understanding, and referring explicitly to the questions, enhanced the best responses. It was pleasing to see more contemporary, up-to-date examples being used, moving away from over-reliance on (often dated) text book studies.

Many candidates had evidently learned the definitions of geographical terms, although many could not distinguish between a disaster and a hazard.

Some candidates were able to create well-drawn maps and diagrams that were appropriate to the question and were useful in the analysis when clearly referred to.

Many candidates appeared to be well trained in the skills of graph interpretation, and more candidates routinely included clear reference to the graphs/diagrams and used quantification to support their statements.

Many candidates are prepared to challenge statements given in questions, allowing them to offer alternative viewpoints and resulting in stronger responses.

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

Option A

Question 1

a) Many (succinct) correct responses. Some did not use correct terms but described the process. Some had erosion and/or transport and deposition terms.

b) Some very competent answers. Most candidates found it easy to explain one environmental benefit though many failed to find a suitable second benefit. Also, many answers tended to describe the causes of salinization and eutrophication rather than explain their impacts on water quality so an inability to elaborate cost marks. Some weaker candidates stated irrigation was an impact and also lost marks.

c) Poor answers focused on one aspect of floodplain management, for example, all that can be written about the Aswan Dam. Many listed strategies, like dams, channelization and so on but failed to evaluate them as strategies for preventing/exacerbating floods. Generally, only a limited range of floodplain management strategies were presented and few candidates were therefore able to enter a detailed discussion. Very good responses used good examples to support analysis.

Question 2

a) Generally, most candidates were able to identify four relevant differences, though the use of appropriate terms such as lag time, rising limb and base flow was frequently absent. Weaker candidates could not clearly identify the elements of the hydrograph, often leading to vague and expanded attempts to describe the differences, even merely describing the shape of the two graphs without knowing what they represented.

b) Good understanding was shown in the majority of cases although there were descriptive answers that did not focus on the stream responses of the hydrograph.

c) Many candidates who responded well to parts (a) and (b) did badly on part (c). Too many named a country but not an actual named river flood event (which needed to be located and dated). A few used outdated case studies. Bangladesh was a commonly used case study, but in many cases there was no mention of the name of the river. Some attempted to look at relative importance of the natural and human causes but tended to be descriptive and answered in general terms concentrating on the effects not the causes. In these cases, human causes were poorly covered. Good responses could succinctly analyse the various factors that supported their stance and those that did well used a wide range of factors to support their conclusion.

Option B

Question 3

a) No problems.

b) Some responses explained the cycle of cliff formation well – focusing on wave action, undercutting and falling away of sections of the coastline.

c) This question was either understood and done well or completely misunderstood. Some recognized the location mid-ocean and on the plate margins but most were unable to locate ocean ridges and many thought they were on the edge of continents.

d) “Geopolitical” was not understood by many. A description was given on the perils of overfishing, for example. Those who made specific reference to a named resource, for example, oil or fish, were able to place it in context to a conflict, with some clear identifications of the problem and why/how the conflict is occurring.

Question 4

a) Well answered with good exemplification in many cases. Others recognized the benefits but failed to develop their response sufficiently to gain a second mark.

b) This is obviously being taught well in most centres. To gain the full marks candidates needed to give a more detailed account of the functions globally or in specific regions. Many simply referred to surface currents and the transfer of heat and cold from warm to cool areas and vice versa, or

focused on the distribution of nutrients.

c) This concept has been well taught. Good candidates were able to well exemplify economic benefits and costs on both sides of the Pacific. There were some excellent maps showing normal and El Niño events. La Niña events were typically ignored. Weaker answers tended to be vague, unsubstantiated and lacking in place detail, or offered up pure descriptions with no attempt to modify or adapt to the question needs, focusing on social as well as economic effects.

Option C

Both questions on this theme were not popular and produced weak answers.

Question 5

a) This was well done and the best candidates were able to articulate the patterns clearly. Weaker answers were vague and not geographical in nature.

b) Numerous answers were unable to suggest socio-economic impacts with located examples and/or simply referred to aridity problems and did not relate these to climate change; others lacked detail or elaboration.

c) This part was very poorly done and only a few candidates were able to identify relevant landforms although there was little understanding shown regarding their development.

Question 6

a) The definition was covered adequately in part (i) but in part (ii) too many candidates failed to recognize the importance of mentioning changes in temperature or identifying freezing point, merely stating it was a cycle of freezing and melting in winter and summer.

b) Responses did not often relate the process of freeze-thaw to the landforms named and in fact knowledge of periglacial landforms was sketchy.

c) The periglacial environment was the most popular extreme environment chosen. Resource development was well exemplified using the Trans-Alaskan pipeline at the expense of looking at a range of physical characteristics. The factors tended to be described rather than analysing the link.

Option D

Question 7

a) Atmospheric conditions were not well understood but relative conditions between eye and eyewall were fine. Too many answers referred only to the weather experienced in the eye and eyewall rather than the atmospheric conditions, for example, few mentioned descending air in the eye and the rapid upward spiralling of air in the eyewall.

b) There was a good understanding of natural conditions necessary for formation of a hurricane but many missed the “hazard event” part of the question, and did not include any reference to human factors.

c) Weaker candidates focused on the case study and not the evaluation of the strategies. A significant error was the inability to distinguish between a hazard and a disaster, with weaker candidates merely comparing an event in an LEDC with an MEDC. Some referred to more than one hazard type. Stronger responses showed good differentiation between the impacts on rich/poor nations though many persist with the idea that evacuation before an earthquake is possible in rich countries. The use of some well-chosen examples were deconstructed with sound evaluation.

Question 8

a) The description of changes was generally done well, although weaker responses did not use the data on the graph.

b) Many simply referred to an increase in hazards due to climate change without any evidence, though most were able to relate increased affluence to rising costs. Surprisingly few referred to increased population living in hazard-prone areas.

c) A number of candidates concentrated on pre-disaster preparations, and whilst relevant to a certain extent, it meant that “during” and “after” were neglected. Some only concentrated on what was not done, for example in Cyclone Nargis, or moralizing about Hurricane Katrina rather than examining the facts. Some saw it as an excuse to write all they knew about a hazard event, with little reference to the question. A number used Chernobyl, oil rig or oil tanker disasters despite the instruction against this.

Stronger responses demonstrated good planning and setting out of the pattern of responses along with time frames and set up some good structure in logical sequence.

Option E

Question 9

Popular question and some very good answers.

a) Graph trends well explained.

b) Strategies in good answers were well developed and exemplified. In weaker answers, the word “promote” was used with no development or explanation, for example, vague statements such as “develop infrastructure and build hotels” were used. Alternatively, some just concentrated on what the attractions, for example, natural environment, were and made no mention of how the environment was used to gain tourist visitors. Also the “low-income country” part of the question was ignored by some who looked at parts of the UK.

c) Some excellent answers and a vast range of case studies were used. The question was well-

discussed and evaluated with most coming to the conclusion that economic benefits did outweigh environmental costs. The best answers were able to debate the nature of economic benefits. Weaker answers frequently referred to a city or specific region, for example, Goa. In weaker responses there was little detailed information about benefits and costs other than vague statements about more income and more jobs.

Question 10

a) This was well done by most candidates choosing to answer the question, although some candidates focused on elite athletes rather than participation.

b) The question tended to be misunderstood regarding the home location of the teams. Although most could refer to a national sports league, knowledge of the location of teams was virtually non-existent. A number of obvious sports fans described where their sport was played with little reasoning.

c) Good knowledge of the concept of sustainable tourism was shown but descended into broad and vague discussions with few references to examples and little evaluation. Failing to draw a conclusion followed by over-generalizing were the two most common problems.

Option F

Question 11

a) Most responses correct.

b) A few were very generalized, for example, Africa, or used descriptive terms, for example, top, left.

c) Many candidates found it difficult to remain focused on economic causes – political, environmental and physical causes were included, demonstrating only a very limited understanding of food deficiency.

d) A very open-ended question with a number of diseases that could be chosen. The most common were malaria and AIDS/HIV. Many just discussed the disease and its causes and spread rather than examining its impacts. Although there were some good local scale impacts most had difficulty relating it to the international scale and therefore comparing it.

Question 12

a) Most candidates understood obesity as the result of excessive food intake but references to the BMI were less common.

b) Well-recognized factors were included but there was failure to elaborate sufficiently for all four marks.

c) A common error was the disease seemed to be travelling by plane to another country with no mention of the vector. Or people carrying malaria to another country and passing it on. Most

candidates attempted a diagram of some sorts. Generally, the process of diffusion was not well understood and there were few diagrams that related well to the concept.

d) Answers to (d) tended to be superficial and were narrowly focused, with few candidates being able to refer to a range of factors other than those related to the Green Revolution, which is hardly a recent phenomenon. Failure to examine in depth was the main issue with this question. Many concentrated just on improved productivity, for example, mechanization, high yielding varieties, and did not really explain how they led to more food availability.

Option G

Question 13

a) This was well attempted though some responses referred to urban area growth rather than population growth.

b) Well done, with most recognizing the negative correlation and able to provide exemplification and quantification or anomaly.

c) Some answers concentrated on urban push factors rather than rural pull factors.

d) Candidates had a good grasp of urban problems in rapidly growing cities and described them well but some could not resist answering with a problem-solution approach and were not always able to state the challenge, such as how to slow down rural-urban migration, or how to improve the quality of housing, simply describing how poor housing (for example, in favelas) was a problem.

Question 14

a/b) Most candidates were able to identify factors such as the amount of green space or the configuration of the street patterns but did not refer to named areas on the map. The same applied but to a lesser extent in part (b), though most were able to identify three reasons for manufacturing location in area B relatively easily. There remained problems with topographic map interpretation and referencing map evidence.

c) Many used many strategies for one urban example and generally these were credited. A popular case study was the public transport developments in Curitiba in Brazil which were often described at length but whose relationship to reduced urban pollution was frequently ignored. The best answers concentrated on one urban area and one detailed, well-evaluated strategy. Those that included too many strategies could not produce an in-depth answer.

Recommendations and guidance for the teaching of future candidates

It is recommended that teachers:

- Continue to emphasize the importance of accurate sketch maps and diagrams and how to incorporate these into examination answers.
- Encourage candidates to practise drawing developmental landform diagrams.
- Encourage candidates to back up statements in map questions with direct evidence from maps (place names, grid reference, distances, direction).
- Emphasize to candidates the importance of learning the command terms' definitions, and of studying the question carefully before responding.
- Make it clear to candidates that they need to memorize definitions and processes but must also be able to develop focused and reasoned arguments based on specific examples.
- Ensure that candidates have a clear knowledge and understanding of key geographical terms, for example, disaster, hazard, geopolitical.
- Emphasize to candidates the need to read the questions carefully and apply case studies effectively to the question rather than writing "all I know about ...".
- Remind candidates to include specific locations and dates (if relevant) for case studies.

Higher level paper three

Component grade boundaries

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 4	5 - 8	9 - 12	13 - 14	15 - 17	18 - 19	20 - 25

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

There has been enormous improvement in performance in this paper since 2011. Areas of the programme where further progress would be pleasing to see in future include subject guide sub-topics 3 and 6. Candidates still struggle to understand the way that capital flows are channelled around the world and they rarely grasp the distinction between outsourcing (global production networks) and the internal spatial division of labour that some TNCs have constructed (wherein they directly own and control off-shored production sites). The role of multi-governmental organizations (MGOs) is still very loosely learned by many. A heightened understanding of the role of trading blocs, the IMF and the WTO will always greatly enhance the prospects of success for a candidate attempting to discuss a statement such as "global interactions are mainly driven by the actions of TNCs" (question 2).

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

Taken as a whole, the November 2012 cohort showed much better understanding of the nature of the assessment compared with the November 2011 cohort. The part (b) answers were more likely to properly demonstrate synthesis, drawing widely from the subject guide for conceptual support. There was also greater evidence of familiarity with topics examined in part (a) questions, especially time–space convergence (question 3) and, superficially at least, diaspora (question 2) and food miles (question 1). Evidence was often contemporary and relevant, including frequent references made to the Arab Spring, the Gulf of Mexico oil spill and events in the Euro zone.

Most candidates had a firm grasp of the role of TNCs in the globe and the various economic, cultural and environmental impacts they may have. Similarly, many candidates were able to critically appraise a variety of methods of resistance to the worst excesses of TNCs.

Most candidates could provide a competent account of global sociocultural exchanges and often employed well-developed examples.

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

Question 1

a) While the topic of food miles was a familiar one for most candidates, the question as written proved to be a struggle for some, who were unable to frame a response around the strengths and weaknesses of "the concept of food miles" (that is, the conception that the footprint of a product can be accounted for by using the distance it has travelled as a proxy). Instead, many wrote about the costs and benefits of long-distance sourcing of food, both for producers and consumers. Wherever possible, some sympathetic credit was given for this approach, although it was rare to see such an answer progress beyond band C.

b) Many candidates could write at length about TNCs, especially the "familiar faces" of McDonald's and Disney. It is a pity that there is less evidence of candidates and centres undertaking individual research into alternative case studies (of which there is no shortage, after all). Generally, most could "play off" the importance of TNCs (as actors) against other forces, typically technology and MGOs (such as the EU, UN and occasionally the IMF). A few grasped that TNCs drive economic and cultural interactions in tandem with other actors who are busy promoting political globalization. A very few could take this further still, delivering a holistic "big picture" of political and economic interactions driven by a nexus of powerful governments, corporations and institutions. One candidate even knew of Nixon's past as a lawyer for Pepsi – gleaned from watching the classic Burp! Documentary by John Pilger, perhaps?

Question 2

a) A superficial understanding of diaspora allowed many to access band D. Candidates scoring 7 or 8 marks sometimes provided, essentially, an account of a single migration but with a focus that was appropriately centred on cultural and not economic impacts for source and host regions. Such candidates were usually able to preface their answers with an approximation of what diaspora means but segued immediately into a lengthy analysis of a single migratory destination, which was a pity. The inclusion of diaspora in the syllabus gives geographers an opportunity to explore how, say, Irish communities in New York and London differ from one another culturally – and from the ancestral culture of Ireland itself. There is also an opportunity to analyse a global population distribution – yet no candidates attempted to sketch a map or provide a table showing this population information as part of their introductory paragraph. Popular case studies included the Chinese and Jewish diasporas, albeit with little grasp of the global pattern. One or two looked at the Welsh community in Patagonia, which was an interesting choice.

b) Many candidates accessed band D by providing a basic, balanced analysis that synthetically employed some range of ideas from the syllabus, such as the power of TNCs and the growth of MGOs (used in favour of the statement) and China and North Korea's decision to remain "switched-off" to varying degrees (used to argue against the statement). The best answers defined the concept – globalization – with enough flair to prepare the groundwork to deliver a superior, nuanced conclusion. For instance, by showing globalization to primarily be an economic process, but accompanied by political and cultural interactions too, an interesting conclusion can eventually be arrived at. One candidate argued that China's leaders, while rejecting democracy and open-access internet (proxies for political and cultural globalization), have felt compelled to "opt in" to economic globalization in the hope of new wealth creation and poverty alleviation. This is exactly the kind of nuanced conclusion to the discussion that examiners were hoping to see.

Question 3

a) Good answers to this question were often conceptually rich and encompassed closely related concepts (shrinking world, friction of distance, two-speed world, and so on) or perhaps critiqued the notion that everyone experiences time–space convergence to the same extent (an important point that geographers such as Doreen Massey have stressed). More mediocre answers, typically reaching band C, took a "general knowledge" approach and described, or listed, a string of famous aeroplanes, sailing ships, and their journey times. The best answers combined conceptual flair with strong evidence-based writing, as they should.

b) Competent answers suggested or implied some sort of global pattern of environmental damage, or used the idea of scale effectively, thereby tackling the command to interrogate whether environmental harm is experienced "everywhere". Some took the view that it is not true that damage is experienced everywhere, or that it is experienced to a lesser degree in some places – this approach could reach band D if a range of evidence was provided to substantiate the assertion. Overall, disappointingly few used scale as an explicit scaffold for their essay (for instance, an argument could be made that global consumption drives global-scale climatic and sea-level changes, and also highly localized forms of damage, such as landfill). The weakest responses took globalization to be a synonym for "humans" and recounted every environmental incident they could remember – sometimes specific (Chernobyl disaster), sometimes generic (acid rain, soil erosion). Often, it was unclear what the link with globalization might be (especially in the case of Chernobyl).

Recommendations and guidance for the teaching of future candidates

Recommendations for delivery of syllabus content:

- Candidates need to develop an understanding of diaspora beyond that of a single migration case study. The starting point for analysis perhaps ought to be a global population distribution map, rather than a single enclave, such as the Irish in New York. More attention should be given to how diaspora influence the continuing development of the source country. In multicultural settings in some centres it may be possible to explore the concept of diaspora by candidates researching their own families and finding out the cultural traits that have survived over the generations. Similarly, interviewing and making podcasts or short films of conversations with employees at the school who have migrated to the host country, may bring alive the experience of being part of a diaspora.

- Descriptive work on time–space convergence (timelines of innovation) should be accompanied by a thoughtful exploration of the actual concept (changing perceptions of distance for different groups of people). In a band E response, examiners hope to see some familiarity with some relevant literature – possibilities include Janelle, Harvey, Massey, McLuhan (global village), Dicken.

- Greater understanding of the more complex outcomes of global interactions will only be possible if some located examples are studied in depth. Group work where candidates take on the role of

different actors and have to justify their actions and other more imaginative ways of examining the vested interest of different stakeholders could assist with this.

- Greater care should be taken in linking environmental harm with actual global interactions (studying pollution along shipping lanes, for instance). Candidates ought to be deterred from treating "global interactions" and "economic activities" as entirely interchangeable categories.

Recommendations for teaching about the nature of the assessment:

Some candidates continue to underperform due to question interpretation errors. Question 1(a) is a good example for teachers to use with a class. Grasping the meaning of "the concept of" is essential to unlocking access to the highest markbands for this question.

Teachers might provide opportunities for classes to work collaboratively to provide a proper evaluative conclusion to discursive essays, such as the three included on this paper. In addition to understanding the assessment requirement to provide a synthetic response, candidates are also expected to have some grasp of what is expected of them in regard to making a final summative assessment of the statement or providing ongoing evaluation. The following table shows edited summaries from band C/D responses (unsubstantiated/assertive evaluation) and band E responses (substantiated evaluation).

Unsubstantiated/assertive final evaluation	**Proper substantiated final evaluation (grounded in conceptual thinking or evidence-based reasoning)**
Question 1(b)	
Having looked at both sides of the question, on balance I believe that nowadays TNCs are most powerful and are driving global interactions. They have more money than many LEDCs and can make their products sell in almost any country using glocalization. However, technology is important too though, especially the internet, so it is not just TNCs that are important to making global interactions happen.	*In conclusion, TNCs act alongside other forces. I do not agree that TNCs drive political interactions, this is more the job of the UN, EU and the IMF (in terms of harmonizing different governments' trade policies). Powerful governments like the USA are also driving geopolitical changes that make it easier for their TNCs to increase economic global interactions. Finally, technology as well as TNCs drives social interactions (through online networks) on a global scale. So while the statement is largely true for economic interactions I have shown that other forces are driving*

	political and social interactions globally.
Question 2(b)	
On the one hand, yes, globalization is unstoppable because TNCs are so powerful. On the other hand, no it is not, because North Korea has cut itself off from globalization. But on balance I think globalization is unstoppable.	*Finally, I think that the answer to this question depends on what we mean by globalization. It is hard for any country to reject economic globalization if it wants to develop through trade, and for this reason globalization will continue. But barriers to the cultural changes that globalization brings are being maintained by countries like China and France, as I have shown. So <u>some</u> aspects of globalization may be unstoppable, but not <u>all</u>.*
Question 3(b)	
In conclusion, environmental damage is worst in LEDCs such as Ghana where e-waste is sent and where polluting factories are built. MEDCs no longer suffer from this pollution any more so I do not agree that environmental damage is experienced <u>everywhere</u>.	*In conclusion everywhere is subject to some harm at a <u>global scale</u>, due to the planetary-wide impacts of global warming and oceanic pollution. However, even more extreme localized impacts sometimes take place too, at a <u>local scale</u>, due to weak local governance attracting polluting TNCs, such as Ghana's government allowing harmful and damaging e-waste processing.*

Further comments

This paper gave plenty of scope for candidates to show their worth with a wide variety of topics to choose from. The best answers were a pleasure to read: they showed young geographers engaging critically with the complex issues that result from global interactions. Their responses often showed deep thought and engagement.