GEOGRAPHY

Overall grade boundaries

Higher level

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 11	12 - 24	25 - 32	33 - 44	45 - 58	59 - 69	70 - 100

Standard level

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 11	12 - 23	24 - 32	33 - 44	45 - 56	57 - 69	70 - 100

This session went smoothly and feedback from centres via G2 forms was very positive.

It was pleasing to see that almost all centres are now following many recommendations made in previous reports. This familiarity with expectations suggests that candidates are being better prepared for the examinations, and becoming more careful in responding appropriately to particular command terms. In addition, more candidates are providing detailed case studies, maps and diagrams in their responses. Many examples quoted by candidates are intelligently used, and well developed with supporting details.

The word limits for internal assessment (IA) continued to cause some concern for some centres. As noted below, it is not necessary for internal assessment work to include a multitude of hypotheses. The mark weightings for the different IA criteria are meant to be a guide as to the likely length of the respective sections of IA written reports.

The quality of standard level scripts on paper two suggested that this standard level cohort was a relatively weak one, though the higher level cohort performed at about the same level as recent sessions.

One overall recommendation is that candidates be advised to respond to questions by starting with their strongest question, rather than always answering questions in the same order as the examination paper. It was apparent from some scripts that some candidates had not performed as well as they might have done, partly because of leaving insufficient time to complete a question that they seemed well prepared to answer.

Higher level internal assessment

Component grade boundaries

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

The range and suitability of the work submitted

Most centres are undertaking fieldwork that is well thought out, allowing candidates ample opportunity to demonstrate their skills of data collection and analysis. The range of topics chosen appeared to be determined by the location of the centre. Coastal, urban and river investigations were most the popular topics. Some of the most successful investigations were local and contained within a small area where there were a limited number of variables. Even more impressive were those investigations that involved changes over time using past data collected by previous students. Few centres undertook investigations involving little or no genuine primary data (as defined in the subject guide).

The majority of candidates worked in groups to collect their data and this was usually more productive and safer than their working alone. However, it is important that the candidates' work is a reflection of their ability and effort in meeting the criteria and this involves the use of maps, photographs and other resources. Teacher supervision is important, but repetitive correction and redrafting of the project is not allowed. Before submission to teachers must ensure that the reports conform to regulations and the 2,500 word limit is not exceeded in any respect. (The most recent advice appears on the Online Curriculum Centre and is repeated below).

Candidate performance against each criterion

A - Aims and hypotheses

Many candidates now appreciate the need to comment on the suitability of their chosen location relative to the aims and theoretical basis of the investigation. Aims were usually well focused and concise, although hypotheses were sometimes vague or simplistic and not worthy of investigation. Hypothesis formulation is still a good discriminator, and it is in this area that candidates still need some training. In an investigation of this length, the number of hypotheses should be restricted. Where there were more than three, candidates sometimes exceeded the word limit.

Mapping skills are improving, but relevance is important. All that is required is a clear map showing the local area or region where the investigation was undertaken and the specific survey sites. Global or national maps are not required.

B - Methods of data collection.

The basic methods used in almost all investigations were well described, but only partially justified or not at all in some cases. In order to maximise their marks, candidates need to ensure that they explain the method of data collection, the number of sites and possibly the time of data collection and how these choices related to the hypotheses. Although many candidates appreciated the importance of sampling, some regarded a "random survey" to be a haphazard activity. Random number tables or strategies used to avoid sampling bias were never mentioned. Many candidates failed to explain how data had been classified. For example, how they had distinguished high or low order goods, tourist or non-tourist activities.

Some of the more successful investigations involved pilot surveys where data collection techniques and equipment were tested for reliability and adjusted if necessary. This also ensured that sufficient data was collected to make any statistical investigation meaningful.

C - Data presentation and processing.

Presentation has been greatly assisted by the candidates' competence in IT skills. Many investigations were enhanced by sophisticated graphical techniques such as annotated photos, maps and graphs. Downloaded maps were quite acceptable, provided that candidates adapted them to include their own (or the group's) data. Some candidates also effectively used overlays. The levels of presentation by some centres was truly impressive, but sometimes exceeding requirements. For example, some reports

over 50 pages long contained repeated graphical techniques. Many candidates competently managed the statistical processing of data although this tended to be limited to Spearman's rank correlation. Other useful tests might have included chi square and standard deviation.

There were a number of deliberate strategies employed to evade the word count. This included putting large amounts of explanatory material in text boxes, placing text boxes on photographs to which they were unrelated, extending footnotes and adding commentary boxes to the text. Some also attempted to reduce the word count by tabulating the entire methods, conclusion and evaluation sections. Although candidates are encouraged to use inventive ways of displaying the data, they must respect the word limit. See advice below about the word limit.

D - Interpretation and analysis

The quality of interpretation and analysis varied greatly between and within centres. Many candidates adopted a methodical approach to this part of the report by relating their data to each of the hypotheses in turn. Possible reasons were given for the connections, patterns, trends and anomalies found in the data collected. The most common weakness was to restrict the analysis to a mere description of results or at worst to give a vague overview with no specific reference to the data collected. The amount of attention given to analysis should match its relatively heavy weighting. Very often, this section lacks sufficient detail and more attention is given to the other parts of the report leading to an imbalance. Where candidates devoted much of their time to background theory instead of interpreting the data, this was reflected in the resulting marks.

E - Conclusion and evaluation

This section of the investigation proved to be the most discriminating and very few candidates achieved full marks. Those who accessed the top mark band reviewed their hypotheses systematically, critically evaluated their techniques of data collection and suggested alternatives that would generate better quality data that could be used more effectively to test the hypothesis/hypotheses. Unfortunately, many candidates appeared to have run out of ideas by this stage and they became repetitive or apologetic. This included making excuses for bad weather, inefficient fellow students, lost materials, inadequate equipment and insufficient time. On the whole, this section of the report deserved more attention than it received from many candidates.

Recommendations for the teaching of future candidates

Candidates should:

- state the hypothesis/ hypotheses clearly near the beginning of the report, before trying to justify their choice.
- ensure that they keep a sharp focus upon aims and hypotheses and avoid lengthy discussion of background theory.
- use a sketch map (preferably not computer derived) to show the location where the study is carried out, with annotations to justify the choice of topic and location
- ensure that the methods of data collection are appropriate for the hypotheses under investigation and would generate data of sufficient quality and quantity for subsequent analysis
- note the weighting of individual assessment criteria in the mark schemes and give sufficient attention to the conclusion and evaluation (criterion E) and do not overemphasize the introductory and theoretical section (criterion A).

Teachers should:

- undertake a pilot survey

- ensure the students' hypotheses are viable
- ensure that fieldwork study involves the collection of the sufficient quantitative data.
- try to develop a chronological survey using past data collected at the centre or nearby
- annotate the reports or include a summary of reasons for the marks awarded
- check all reports to ensure that they are within the word limit before submission.

Keeping within the word limit:

One particular feature of this session was the alarming number of candidates who disregarded the word limit or sought to evade it.

The following clarification is being given, as there is still misunderstanding about what is counted in textboxes and annotations.

Definitions

- Label: less than, and including, 10 words
- Annotations: over 10 words

Words **not** included in the word count

- Title page
- Acknowledgements
- Contents page
- Titles, subtitles
- Citations, references and bibliography
- Footnotes (up to a maximum of 15 words)
- Appendices—containing only raw data and/or calculations
- Photos
- Map legends and/or keys
- Labels—notation must be less than 10 words
- Tables—tables of statistical, numerical data, or categories, classes or group names
- Calculations

Words **included** in the word count

- Every word placed in all annotations.
- Main text: the introduction, hypotheses, analysis, conclusion and evaluation, wherever these appear.

This advice is published in the document "*further guidance on completing geography internal assessment*" (November 2006, updated January 2007) and appears on the geography page of the online curriculum centre and supports information in the Teacher Support Material (published in September 2004) and other details previously published in DP Notes.

Close inspection of all assessment criteria reveals that in order to achieve maximum marks a candidate needs to prove competence in a particular skill just **once** only. It is unnecessary and time consuming to repeat the technique when the criterion has already been assessed. For example, if one

statistical tests such as Spearman's rank has been used it is not necessary to use another test or to display the results of the same relationship in a scatter graph.

The purpose of the word limit (introduced in 2005) was to ensure a manageable workload for students, teachers and moderators. It is disappointing to see that some centres habe not followed this rule in spite of previous warnings. Equally, it is encouraging to see that many excellent fieldwork reports were produced that were within the word limit.

Standard level internal assessment

Component grade boundaries

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

The range and suitability of the work submitted

A wide array of topics was received and among the most popular ones were rivers, coasts and settlements. The pieces of fieldwork were more inspired than the research assignments, which were mostly about the core theme. It also seems that most schools are keeping to the word limit and are using more graphic techniques to present the material compared to previous sessions.

Candidate performance against each criterion

Criterion A

Although in some cases the hypotheses tend to be simplistic, there has been a big improvement in terms of using theoretical background. Most centres developed the spatial component well and was only a minor problem in some centres. The quality of the maps is also continuously improving although it still advisable to note that maps produced by the candidates tend to obtain better results than the ones just downloaded or photocopied, unless they are well annotated.

Criterion B

In the case of criterion B more data is being included and only a small proportion of schools are struggling with very descriptive pieces of work that lack proper data. Again one of the weakest areas in the samples was the lack of awareness of sampling techniques or evaluating the validity of data. This is an area where there is important room for improvement. Investigations were generally adequate and the fieldwork reports were more so than the research assignments. The latter’s dependence on secondary data led in some instances simply to the downloading of data from the Internet without any attempt to process the data, or even to attribute the source.

Criterion C

In some cases, a variety of graphical techniques were used to present data collected as well as clear and well-labelled photos to depict different aspects under investigation. In other cases, the variety of the methods of data processing and presentation is still a problem that needs to be addressed, as the tendency is to produce very repetitive types of graphs with few statistics. Again, there was a difference between fieldwork reports and research assignments. Most of the former endeavoured to go beyond descriptive calculations and to work inferentially by manipulating and interpreting data. There were some very good applications of Spearman rank. This seems to be one of the most popular statistic methods. While mapwork skills were varied and well displayed, the ability to produce maps in colour, of a high quality, and in fine detail presents a challenge.

Criterion D

This was the weakest part for many candidates. Iin some cases, the lack of depth was detected as an issue, especially where the investigations are too broad to be covered in 1500 words. This problem can be addressed when formulating the hypotheses. In some cases, plenty of data was collected but not effectively used. Candidates achieving high marks used statistical methods to test data collected and produced the most detailed analysis and discussions. It should be kept in mind that most words should be contained here and not in the introduction.

Criterion E

In line with the previous sessions, candidate continue to provide sound evaluation and some gave suggestions for improvement, although in some cases they still tend to be simplistic.

Recommendations for the teaching of future candidates

Candidates should be encouraged to undertake the following actions.

(a) Use background theory for investigations so that they are geographical in nature. Testing of models and theories is always an advisable aproach.

(b) Include an appropriate amount of proper data, secondary or primary.

(c) Stress the importance of "processing" data; that is, transforming the data into other means such as maps, tables, graphs, and especially statistics as it is obvious that some candidates are still reluctant to use them.

(d) Use a sketch-map (preferably not computer-derived) to show the location where the study is carried out, with annotations to justify the choice of topic and location.

(e) Use their data appropriately in their analysis and relate the data to the research question by making specific reference to them.

(f) Use tabular or graphic presentation in the sections relating to criterion B and possibly parts of criterion A will help students to cut down on the word count for these criteria, although these must observe the guidelines on annotations, as detailed below.

Further comments

The following points should assist the teachers and candidates in preparing the reports.

(a) The inclusion of teacher's notes that has been a constant in the previous sessions is still improving; it is recommended that all teachers include notes to justify marks allocation. It is also important that these notes are as specific as possible.

(b) Ensure that the study involves the collection of sufficient quantitative data.

(c) Keep to the new requirements as some schools still sent two pieces of work this session. As well the 1500 word limit and one piece of coursework rule will be kept rigid in the future.

Advice on annotations and text boxes given in the higher level internal assessment report must also be followed for SL IA.

This advice is published in the document "*further guidance on completing geography internal assessment*" (November 2006, updated January 2007) and appears on the geography page of the online curriculum centre and supports information in the Teacher Support Material (published in September 2004) and other details previously published in DP Notes.

Higher and standard level paper one

Component grade boundaries

Higher level

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 5	6 - 11	12 - 14	15 - 20	21 - 27	28 - 33	34 - 50

Standard level

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 5	6 - 11	12 - 14	15 - 20	21 - 27	28 - 33	34 - 50

General comments

Only 20% of centres had completed and returned the G2 feedback forms in time for the Grade Award meeting. Of the forms returned, 60% thought that the paper was a similar standard to last year. The perception that the paper was either "a little more difficult" (4 centres at HL, 2 at SL) or "much more difficult" (2 centres at HL) was not borne out in practice, judging by the marks achieved by candidates for equivalent standards of work. There was unanimous agreement that both the clarity of wording and presentation of the paper were either satisfactory or good. Two centres expressed some reservation about the syllabus coverage; their comments have been forwarded to the paper setting team for consideration.

Individual comments expressed pleasure at the style of the final part of each question which required higher order thinking skills, and at the clear progression of difficulty from the first to the last part of each question, and at the "clear stimulus material".

The mean grade achieved was very slightly higher than November 05. It appears that the preparation of candidates continues to be generally sound, and that the examiner's reports from earlier sessions have been read and absorbed.

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

No question proved to be universally difficult and, in terms of content, there appeared to be no serious areas of weakness. However, responses about the conservation attempts in the context of a specific resource (question 3(c)) and about the issues affecting the exploitation of natural resources (question 3(d)) were disappointing. Time allocation and examination technique, despite some improvement, remain areas of concern.

The failure to read the command terms carefully also remains a problem. In particular, marks were missed by candidates who failed to annotate population pyramids (question 1 (b)), or who gave overly long responses to preliminary parts of questions (see questions 1(a), 2(b) and 3(b)) which are worth only a few marks each. This inevitably resulted in time-pressure for some candidates, which was evident in abbreviated or curtailed responses to some of the last parts of questions that call for extended writing.

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

As the overall performance in this paper indicates, candidates seem generally well prepared in all areas and this is supported by the evenness of marks obtained in all three questions.

Of particular (and pleasing) note was the increased willingness of candidates to present relevant diagrams and maps, neatly drawn and effective. However, it must also be added that some maps and diagrams served little purpose and contributed nothing to the responses.

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

Question 1 - migration

This was the most popular question, attempted by 85% of the candidates. Application of the knowledge of population pyramids was good and most candidates coped happily with the shorter stimulus-based questions.

(a) description of, and possible reasons for, the age-group pattern of population movement. Almost all candidates recognized, and could explain, the main patterns. A minority of candidates misread the question and responded as if the diagram portrayed international migrants. The strongest responses recognized that the figure for 85+ covers several age periods (including 85-89, 90-94, 95-99), and is therefore not an anomaly in the trend of mobility decreasing with age after the age of 20-24.

(b) annotated population pyramids. Responses were very disappointing. Many pyramids were small and poorly drawn, with few or no annotations. Despite the wording of the question, several candidates opted to replace annotations with lengthy written responses. Many responses were unable to distinguish clearly between forced and voluntary migrations. Many responses failed to focus on population structures and instead discussed the motives of migrants.

(c) factors causing people to leave rural areas in LEDCs. Most responses focused on examples of rural-urban migration, though some also considered the international migration of people from the rural areas of some LEDCs. Many responses examined the pull factors of urban centres in much more detail than the push factors that tend to motivate rural dwellers to leave the countryside. Very few responses examined the onset and causes of rural impoverishment. While there were some good responses, many candidates provided only a superficial and generalized account, lacking hard factual knowledge or detailed examples.

Question 2 – dependency rations, HDI and development

60% of the candidates chose this question. The level of performance was similar to that for question one.

(a) dependency ratio. Almost every candidate knew that the dependency ratio was obtained from the figures for dependents and economically active population, but many missed the need to multiply by 100. Very few candidates were unable to identify 2000 as the year when it was most favourable. Many candidates wasted time here in making detailed calculations to support their contention, where observation alone should have been sufficient.

(b) significance of a changing dependency ratio. Most candidates recognized the changing dependency ratios (an improvement followed by a deterioration) but suggestions of its implications for the country were usually vague and sometimes inaccurate. Any spatial implications were almost completely ignored.

(c) HDI changes and effects of AIDS on HDI index. The description of HDI changes was usually sound, and included quantification. The stronger responses about the role of AIDS began by stating the three variables used in compiling the HDI index, and then examined how AIDS would affect the

values of each variable. There were some thoughtful responses to this question, showing a willingness to think and reason.

(d) factors, other than disease, limiting the development of a country. Responses covered the full range of marks. Weaker responses sometimes discussed more than one country, or only one part of a country. There was some confusion evident between the symptoms of limited development and the factors that limit development. Too many responses focused on a very limited range of factors (particularly the economic and political ones) rather than discussing a wider range. The strongest responses were outstanding, showing an excellent grasp of the complexities of development in the context of a single country.

Question 3 – income distribution, resources

55% of the candidates chose this question and the level of achievement was slightly lower than that of the other two questions.

(a) Lorenz curve interpretation. More candidates were able to read off the value for the poorest 40 per cent in country A, than for the richest 20 per cent in country B.

(b) problems of an uneven income distribution. Virtually all candidates recognized that country B had a marked concentration of wealth. However, too many responses argued that the main issue faced by the country must therefore be a high incidence of poverty. Stronger responses recognized the uneven spatial development that is likely to accompany such an uneven income distribution, and made valid points about political power, stagnant or declining regions and the potential for social unrest.

(c) attempts to conserve a specific resource. A wide range of resources, and scales, were looked at. Description and explanation of specific conservation programmes were very rare in these responses, most of which tended to be vague and generalized. The distinction between conservation and substitution was not always clear. Quantification was usually lacking. Evaluation was often superficial and unsubstantiated.

(d) issues which encourage the exploitation of natural resources in LEDCs. Responses to this open-ended question were very disappointing. A wide range of issues was examined, but it was not clear how many of these issues would *encourage* the exploitation of natural resources. Weaker responses demonstrated a weak grasp of the definition of natural resources and often wandered off topic. Even the strongest responses tended to concentrate on only one or two issues, rather than look at a sufficiently broad range of internal and external issues.

Recommendations and guidance for the teaching of future candidates

As already noted, the impression gained was that the candidates were well prepared for this examination. Knowledge of both facts and concepts was excellent in many centres and candidates frequently demonstrated an ability to apply this knowledge most effectively.

Some weaknesses still remain with examination technique. One particular concern (remarked upon in several previous reports) is the failure to pay sufficient attention to the command term/s and the mark allocation for each question.

Questions calling for responses based **only** on annotated diagrams or maps will continue to be set. It is imperative that candidates understand that in responses to such questions, no credit is available for written material separate to the diagrams or maps.

Legibility of handwriting is also still an issue. Several scripts this session were very, very difficult to read. Examiners should not have to struggle to decipher what any candidate has written.

Higher and standard level paper two

Component grade boundaries

Higher level

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 10	11 - 20	21 - 26	27 - 35	36 - 46	47 - 54	55 - 80

Standard level

Grade:	1	2	3	4	5	6	7
Mark range:	0 - 5	6 - 10	11 - 13	14 - 18	19 - 22	23 - 27	28 - 40

General comments

This is the eighth exam of the current syllabus and it is evident that teachers and candidates are benefiting from past experience and the use of previous exam papers as a guide to revision. The most notable improvements have been the depth of case study knowledge and the range of examples upon which candidates are able to draw in the exam. Factual content has improved significantly and many candidates are now able to avoid generalization. However, misinterpretation of command terms and terminology used in questions continue to undermine the hard work and thorough revision undertaken by candidates in preparation for this exam. Careful scrutiny of the command terms used in past questions and the terminology used in each syllabus theme will help to ensure success in the exam.

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

Although the candidates' level of knowledge and understanding was good, lack of practice in exam technique often lets them down. Command terms such as "describe", "explain" and "evaluate," continue to be misunderstood by some candidates. Time management was also a problem for some who, in their enthusiasm to show their case study knowledge, gave too much time to earlier questions at the expense of late ones. Illegible scripts and unidentifiable answers make some scripts hard to read and although every effort is made by examiners to give the benefit of the doubt, poor presentation penalizes performance. As in previous exams sessions, the structured questions were more popular than the essays, although the marks awarded were very similar. Choice of exam questions was clearly pre-determined by the themes taught in class resulting in candidates from same school choosing the same question topics. Those candidates who chose themes that had apparently not been taught in class were seldom successful. Unpopular topics were arid environments, ecosystems and human activity, contemporary issues in geographical regions and productive activities and at standard level, climatic hazards and change. Marks for these questions were also relatively low.

Level of knowledge, understanding and skill demonstrated

Knowledge and understanding has improved significantly over the last few sessions and many candidates are now able to produce detailed and well-supported answers. There were some outstandingly good essays where candidates focused upon the key commands of the question and produced a logically structured answer. Many candidates are improving their use of vocabulary and clearly learning geographical terms. Most can provide a definition when required to do so directly by the question, but few candidates spontaneously use appropriate terminology in their answers. Case study knowledge is very impressive and often accompanied by useful sketch maps, though at standard

level, the quality of such maps and diagrams was generally unsatisfactory. Several candidates applied their own fieldwork knowledge to exam questions in a most effective way.

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

A Drainage basins and their management

This was a popular theme overall, but performance was rather disappointing particularly in the essay.

(a) Responses were generally poor, with consideration for a very limited number of different landforms. Some candidates misinterpreted this as "rivers" or "water" rather than "river landforms". Several weaker responses also included material pertaining to marine coasts, not rivers. Occasionally the assets of floodplains were mentioned but only with respect to agricultural production; other uses such as communications, secondary and tertiary industries were mainly omitted. At standard level, responses showed only a limited knowledge of applicable river landforms.

(b) In part (i) some referred to data collected in the field instead of that in the table. In part (ii) many candidates were able to define both "discharge" and "hydraulic radius" and most understood the concept of efficiency, though standard level candidates were in general less sure of the concept of efficiency.

(iii) Although many candidates mentioned bed roughness and gradient as factors influencing stream velocity, the explanation given was often very limited. In several cases candidates failed to focus upon the channel and instead, referred to the river basin as a whole or its water supply. At standard level very few responses examined variations across the channel in relation to depth and the shape of the channel cross section.

(iv) It was more common to find at both higher and standard level, candidates answering the question on how humans manage river basins rather than why they modify river channels. Consequently marks were often poor.

A 2 Coasts and their management

Both these questions were relatively popular and performance was well above average in each case, however at standard level, although part (a) was less popular, candidates tended to perform better than in part (b), and, though there were some excellent responses, there was a much wider range of marks.

(a) It appeared that many candidates had thoroughly learnt at least one coastal case study that they applied to the question, but without evaluation in some cases. This question proved to be a very good discriminator with some candidates presenting a well-reasoned explanation, while others dismissed this issue briefly. Many regarded tourism or lack of choice as reasons for high population densities in hazardous coastal zones, but few recognized other attractions such as accessibility, agricultural productivity, mineral potential, port activities and aesthetic value for retirees.

(b) Parts (i) and (ii) were well answered and most candidates could explain the effect of a revetment upon swash and backwash processes.

(iii) Many candidates simply described different types of coastal erosion with no emphasis upon rate. Natural factors were usually limited to an explanation of constructive and destructive waves with no recognition of their variable effect. Knowledge of geology was also very superficial and seasonal or other temporal changes affecting beach profile were mentioned by only a few. Candidates continue to overestimate the importance of wind action as an agent of marine coastal erosion.

(iv) Very few answers gave an overview of management approaches to erosion. There were some excellent comparisons of management schemes in the Netherlands and Bangladesh, but the majority of candidates had very little knowledge of the dilemmas faced by communities living in under-funded coastal zones of LEDCs.

A 3 Arid environments and their management

(a) This question was relatively unpopular at both higher and standard level, and was mostly poorly answered. Answers were vague and generalized with an absence of specific activities and locations. Some focused on only a single land use (usually agriculture) and attempted to construct an entire essay around that single activity.

(b) (i) Sparse vegetation was the most common reason given for the semi-arid environment shown, but few answers gave a second reason. In part (ii) many identified the feature as a mesa, although butte was also accepted. Wind was often inaccurately cited as a cause of its development. (iii) A few mentioned changes in grazing patterns, others climatic variability and the rest gave implausible explanations. (iv) Very few answers showed any knowledge of either the characteristics or value of soils found in arid zones.

A 4 Lithospheric processes and hazards

(a) This was a straightforward essay, requiring detailed knowledge and understanding that was generally well done by those who attempted it. The best answers identified a number of different variables, such as water content and gradient, and then explained how these affected rates of erosion. Some found difficulty in distinguishing between solifluction, soil creep and mudflows, but on the whole explanation was accurate and references were made to relevant examples. The second part in the essay involving human impacts of mass movement, proved to be more challenging. Answers were often superficial particularly where slow mass movements were concerned. Very few standard level candidates attempted this question.

(b) This was one of the most popular questions, where performance ranged widely, but was above average.

(i) Many were able to identify at least three techniques for monitoring volcanic activity, but sometimes not in sufficient detail.

(ii) The majority of answers accurately distinguished between primary and secondary volcanic hazards, but there is still some confusion over lahars which are often quoted as primary instead of secondary hazards.

(iii) The assessment of the responses shown in the diagram proved to be very difficult for some candidates who simply elaborated on the information given in the diagram or gave an overview of responses disregarding the stages shown in this cycle. For those who adopted the correct approach, strategy C produced some realistic responses, though at standard level there was little knowledge of the types of structures that can be used to withstand ashfalls and to attempt diversions of lava flows. In D no one mentioned the use of a hazard risk map and the difficulties of the imposing regulations upon societies that were less developed and more dispersed. Many coped well with the discussion of strategy E, although much of this material was repeated again in F.

A 5 Ecosystems and human activity

(a) This unpopular topic was matched with disappointing results.

The best answers selected a small unit of study such as a psammosere and accounted for the effects of human impacts upon its succession. Such answers were rare and on the whole knowledge was superficial and generalized. At standard level there was also little reference to interruptions leading to secondary successions and subclimax / plagioclimax vegetation.

(b) In part (i) most managed to identify A and B and define T3. In (ii) most responses accounted fairly well for the changes in the size of the biomass but many responses lacked knowledge of the percentage lost at each stage. Very few did (iii) well and where they resorted to vague impacts without the depth of knowledge required. Terms are often omitted and some did not understand biodiversity. In part (iv) the rainforest was almost universally chosen but again responses were vague. Only a few answers showed any real understanding of the influence of light, precipitation, and temperature upon structure and functions such as energy flow in and nutrient exchange.

A 6 Climatic hazards and change

(a) This was one of the least popular questions in the exam and responses were correspondingly disappointing.

Few responses showed an appreciation that although long-term drought is most common in areas that are semi-arid, it may also occur in any climatic zone. Very few candidates made any attempt to define long-term drought and their essays lacked knowledge of the physical processes involved. Essays on the formation of deserts and desertification were presented where real understanding was lacking. At standard level very few responses showed an appreciation of how human practices can exacerbate long-term drought.

(b) In parts (i) and (ii) only a few answers accurately described the trends and explained the superimposition of global warming upon smaller-scale urban / rural temperatures.

(iii) There were a few excellent and detailed answers giving a variety of ways in which urban and rural microclimates differ including wind, humidity, and sunshine hours. A few candidates continued to focus upon temperature and entered into a discussion of the urban heat island effect. Standard level responses were particularly poor overall.

B 7 Contemporary issues in geographical regions

(a) No candidates answered this question

(b) One very weak answer was seen.

B 8 Settlements

(a) This was relatively unpopular with varied results. Essays revealed good case study knowledge, particularly of the London Docklands, but a broader approach that included LEDC cities was desirable. The best answers included definitions of "deprivation and decay" at the start, thus setting the scene and providing some kind of coherence to the essay.

(b) This was one of the most popular questions on the paper, with widely ranging marks. At standard level, though overall performance was quite good on this question, there were few outstanding answers.

In part (i) some candidates lost marks where they considered rural and urban trends in isolation, without considering their relationship. Others failed to quote specific data to support their answers. In part (ii) detailed demographic knowledge of Europe and Africa was not expected, but some understanding of the dynamics of urban population change was required. Most recognized the importance of rural-urban migration in Africa and made brief comments upon the push and pull factors involved. In the case of Europe, many inaccurately cited rural-urban migration as the major cause of recent urban growth. Only a minority of responses showed an understanding of the dynamics of urbanization by commenting upon the interaction of demographic processes - natural change, counterurbanization and international in-migration. The marks for part (iii) diverged dramatically at both higher and standard level with some candidates producing truly excellent and detailed answers, while others choose unsuitable examples of MEDC cities that have long ceased to experience population growth.

B 9 Productive activities: aspects of change

(a) Only a few attempted this question but the responses were relatively strong at both higher and standard level. Good candidates recognized the significance of space-time convergence and the resultant dispersion of TNCs across the globe. Many highlighted the difference in transport and communications temporally and the impact of the worldwide web as a means of facilitating communication.

(b) This was the more popular option. In part (i) most selected South Asia and described the trend relatively well although the reasons were often vague with only a few recognizing the rapid rise in

population and the spread of HYVs. Part (ii) was well done with most candidates naming and describing other technologies but again there was often little detail to justify giving full marks. Part (iii) was extremely poor with many not really understanding that sustainable really referred to an environmental concept.

Although very few candidates attempted part (b) at standard level, responses were generally very good and candidates were well prepared to answer all sections of the question effectively.

B10 Globalization

Although this question was a popular choice, answers tended to be rather general and often limited by inappropriate case studies.

(a) In the essay, many candidates commented initially upon the growth of global tourism, but very few set the scene by explaining the terms "culture" and "indigenous". Many candidates wrote confidently about culture, but only a few mentioned the environment. Few candidates gave any definition of "indigenous" population, although many chose acceptable examples such as the Maasai tribe in Kenya, the Dani tribe in Irian Jaya or the tribes of coastal Goa. The focus of many candidates was upon the negative rather than positive impacts and some emphasized the effects of globalization generally rather than tourism.

(b) (i) Many candidates accurately defined globalization

(ii) Only half the candidates were able to suggest indicators that were strictly related to globalization rather than development.

(iii) Description of the relationship was usually accurate but inadequately explained by many.

(iv) Candidates devoted much time to writing this part of question and their answers were confidently filled with numerous examples of cultural references. Terms such as westernization, McDonaldization and hybridization were loosely and often inappropriately used. Physical differences between countries were recognized with respect to dress, music, food, but environmental and economic convergence was rarely mentioned.

C 11 Topographic Mapping.

This question was popular, but performance varied between questions. Basic measurement skills were sound, but observation and written interpretation were weak.

(a) The great majority of candidates arrived at the correct answer of 2.5 kilometres (not 2,500 metres) and many recognized that the two peaks were not intervisible.

Several candidates deduced this by drawing a small cross-sectional diagram; this was useful, but not essential.

(b) (i) and (ii). Many accurately stated both the compass and photographic directions.

(iii) The labelled sketch maps were poorly constructed and only a few candidates included conventions such as title, scale, north point and key. The boundary of Florac's built-up area was sometimes missing along with surrounding settlements and communication links defining its situation. This question was particularly poorly done at standard level where few responses showed any understanding of the meaning of settlement morphology or situation.

(iv) Few candidates understood what "functional zones" meant and few were able to distinguish residential or other land-use patterns evident on both the map and photo. However, many correctly related Florac's linear development to local topography.

(c) This question revealed poor mapwork skills. The key was inadequately used and tourist activities were seldom located using grid references, directions and distances. Answers tended to be disorganized with candidates failing to make either clear or realistic links between physical features and specific tourist activities. At standard level, numerous responses used the key rather than the map

to identify tourist activities giving examples of activities that could not be found on the map such as golf, yachting and ski lifts.

Recommendations and guidance for the teaching of future candidates

- Timed questions and past exam papers allowing for better time allocation between the four questions at HL.
- Revision of specific terms for each topic covered in the syllabus.
- Practice in question interpretation and understanding command terms.
- Practice in drawing relevant diagrams/maps such as specific urban plans, drainage basins and coastal zones.
- Access to topographical maps to practice landscape / land use interpretation, accurate referencing and sketch map illustration
- Practice in incorporating quantitative data when describing graphs

