

# GEOGRAPHY

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Paper 9768/01  
Global Environments

## Choices

Of the six options on this paper, four were selected for response. Neither Tropical nor Temperate environments were chosen. Of the four, every Centre chose The Atmospheric Environment, two Centres chose Glacial and Periglacial Environments and a single Centre answered on Coastal Environments.

## Timing

All but a few managed to complete the paper in the time allocated, all but one candidate completed all the questions attempted.

## Reading the question

What is especially noticeable in the current format of this paper is the role played by the data response questions. Candidates can score at least 66% of the marks for a question by responding appropriately to interpretation of the data and the ability to explain the topic for **(a) (ii)**. There were many instances this year that candidates demonstrated an imbalance in the award of marks between **(a)** and **(b)**. This was particularly true of **Question 6** and of those who chose to answer **Question 6 (b) (ii)**. This question was about 'the **impacts** of global warming'. A large proportion of candidates wrote about the causes instead of the impacts. Some candidates did list some impacts as well as discuss the strategies to reduce the causes. In these cases the top of Level 2 i.e. 7 out of 15 marks could be achieved. Indeed some candidates did succeed in this. It is important to note that careful reading and thought about the wording of question is imperative for success. This underlines the importance of planning a response before writing it.

## Planning

Planning carefully before writing the essay answer can occupy a few valuable minutes of the examination time and candidates should be aware of this. Plans are always scrutinized and considered, it was noticeable that most Centres did not include plans this year. They enable a candidate to consider all aspects that should be included before starting their argument. They also provide valuable thinking time prior to beginning the response.

## Diagrams

Once again in response to questions about Geomorphology for instance **Question 1 (b) (i)**, **Question 2 (b) (i)** and **3 (b) (i)** the diagrams included were not well-drawn and not well-labelled so that they contributed little to the answer. When writing about landforms it is an important feature of understanding to include appropriate diagrams. Similarly questions concerning coastal management can be usefully illustrated too; this would apply to **Question 3 (b) (ii)** this year the subject of which was 'Managed realignment'.

An integral part of the essay question in addition to description and explanation is the evaluative element. This assessment often needs to involve aspects of the subject not immediately apparent from the question. This skill can be included throughout the argument or encapsulated at the end in a comprehensive conclusion but it essential for Level 4 marks.

## Data Response Questions

The first part of the **Question (a) (i)** necessitates careful observation, description and analysis of data provided. This can come in a variety of forms photographs, cartoons, graphs and diagrams this year. These are **visual** stimuli which require **verbal** responses so the conversion from eye to language is important and appropriate terminology is important as is reference to all aspects of the information given. For instance,

**Question 6 (a) (i)** required interpretation of the ENSO in the Pacific Ocean. The diagrams included winds pressure and the thermocline so for good marks all three elements should have been mentioned. In some questions, the command word can be the key to a successful answer as was the case in **Question 2 (a) (i)** when the question demanded comment about the 'trend' of temperature over the period. This means that the overall increase/decrease (as appropriate), some data to support that, the fluctuations shown, their scale and specific figures from the graph are needed for full marks. Similarly words like 'pattern' require a particular response so candidates need to be aware of exactly what is requested of them. If candidates are aware that such specific requirements are attached to particular terms then these can be practiced and become familiar saving time in the examination.

Terms like 'physical features' when applied to landscapes generally include the landscape itself rather than the sky so in **Question 1(a)(i)** references to clear, blue skies were not credited whereas terms that described the arid landscape such as 'armoured surface' dry, flat (obvious but often missed) stony, 'reg' ventifacts were all appropriate as was reference to the higher land in the background showing the transition to 'hamada'.

In **(a) (ii)** explanations are the focus of the answer. These need to be logically developed to demonstrate the ability of being able to extend the subject to a higher order skill.

### Comments on specific questions

#### **Arid and Semi-arid Environments**

##### **Question 1**

**(a) (ii)** Traditional lifestyles were well known, the photograph could have provided a guide i.e. clothing and animals which the best candidates used. The clothing has several aspects to it, colour loose fitting and all enveloping. In order to show understanding and explanation, candidates needed to mention albedo in relation to colour, loose fitting in relation to trapping of cooler air next to the skin and the covering in relation to sandstorms when the sand can act as an abrasive on the skin. All in all the clothing is a protective layer for the tribes inhabiting these arid areas. This approach would constitute a full explanation and attract good marks.

Pastoral Nomadism was a popular choice for explanation but it needed to be closely related to aridity, availability of water and pasture. However some responses showed some confusion regarding the meaning of the term for pastoral nomadism.

**(b) (i)** Desertification is a term requiring definition and many candidates started with a correct definition but stopped at degradation of the land. Arguably it includes the extension of arid areas to occupy more land on the margins of established deserts. Both aspects are a useful part of the definition. Assessment of management of strategies designed to combat the process, required specific examples and then an assessment of their success in limiting degradation of the land. This assessment did not always make most use of discussion of the soil. i.e. nutrient content and top soil removal by erosion. It is this connection with the physical environment which is so important to gain good credit. The spatial element can be important too so scale and concepts such as sustainability could be included but the latter is not seen as the key in this question. It needed to focus on soil erosion and degradation. Wind and water are key components in the answer.

Some candidates included detailed references to both small and larger scale schemes with which they were familiar, for instance in Morocco, but failed to relate them back to desertification so their responses were more descriptive than evaluative.

Many candidates forget the spatial and locational importance of the subject too.

**(ii)** The thrust of this question is the extent to which the arid landscapes of today are the result of present day or past processes.

Very few candidates appreciated in their responses that such large-scale landscapes are relict features formed during the 'pluvial' periods of the Quaternary. Today they are merely modified by the agents of wind and water. Such huge sand dunes are the sand seas of the last Ice Age but most candidates were not aware of this aspect of the question. Also few candidates engaged with the idea of scale and particular form. Diagrams were noticeably absent and if they had been included were not labelled with reference to scale and particular form. Wadis and sand dunes

would have been the best examples to select. Most candidates made vague references to the time scale using words like 'in the past' and 'for centuries', 'at different times', and 'for thousands and millions of years'. All these are too vague. However, some candidates were able to use references to 'fossil features', 'pluvial periods' and relate these rainfall periods to 'deeply incised wadis' etc. Some candidates understand the close connection between process and form which is so important when explaining how landforms are produced.

## Glacial and Periglacial Environments

### Question 2

- (a) (i) Reference has been made to describing the trend of temperatures in Greenland.
- (ii) What was important in explanation of the ice covering in Greenland is the relationship between accumulation and ablation in terms of mass balance of the ice and the outcomes of not only the extent of the ice but its thinning. The last point was not included in most responses.
- (b) (i) Discussion of the processes of mass movement was universal in these answers, less obvious was awareness of frost weathering and the resultant landforms. The term easily identifiable was another important aspect of the question that was missed in many responses. Most candidates failed to appreciate that scale and form is an integral part of a complete answer. It is indeed the evaluative part of a response. Many landforms found in periglacial landscapes are small-scale micro landforms. Scale classified by micro, meso and macro did not appear in the responses but might have been a useful guide to indicate 'clearly identifiable'. Internal structure i.e. the stratigraphy is another way of identifying them as is composition. However, many candidates are aware of asymmetrical valleys and the mass movement process associated with them which featured prominently to good effect.
- (ii) Case studies formed the basis of the question about opportunities and constraints of human activity in either glacial or periglacial environments. Care needs to be taken in defining the area and justifying the choice of environment. Broad sweeps of the globe like 'The Arctic' does not narrow down an area to be justifiable as either glacial nor periglacial. The arctic may include both!

If a post-glacial area is selected then that is fine but requires definition, justification and explanation. If it is a currently glaciated area equally this needs to be made clear. Some candidates did not justify their choice making it difficult to be sure why the area had been chosen.

It must be borne in mind that the question is on a physical Geography paper therefore an account of human activities which does not relate closely to the nature of the physical environment does not address the question on this paper.

The evaluative element was well done in many responses but lacking in others. Conclusions needed to focus on the relative opportunities and constraints according to the location.

## Coastal Environments

### Question 3

- (a) (i) The cartoon depicted the ways on which threats may compromise coral reefs. This is an example of an answer which requires interpretation of the visual to the verbal. Candidates did not struggle unduly with this question finding four threats straightforward to note.
- (ii) Explanation of two threats needed specific reference to the functioning of coral reefs and many candidates were clear about polyps and bleaching but less clear about how the reef is actually a home for polyps, the importance of photosynthesis and the symbiotic relationship to the algae and the specific loss of colour that is produced if this relationship breaks down. Similarly it is important to note that boats damage reefs physically by breaking off the branches in which the polyps live. Hence the long term damage to both habitat and form. Logical development of explanation is the way in which marks can be maximized.
- (b) (i) Geomorphology is at the heart of this question which was attempted by a small proportion of candidates who did not recognise geology as a factor in the formation of cliffs. To illustrate profiles are better than plan too. There are other factors that affect cliff form geology being only one. The

relative importance of these factors needs explanation in relation to process and the ultimate form. Diagrams are essential and proved elusive and when they were included were poorly labeled and drawn so were not illuminating.

- (ii) This question on the relative merits of 'managed realignment' realised some of the highest marks on the paper. There were some good answers. Candidates knew the Abbotts Hall Farm example well and could compare the management strategy used here with other soft hard engineering strategies.

## The Atmospheric Environment

### Question 6

- (a) (i) This question required identification of the two diagrams i.e. The ENSO and the normal Fig. 5A and reversed El Nino event Fig. 5B As the diagram features winds pressure and the thermocline, reference to all three was expected. Many candidates did not describe the three components.
- (ii) The economic implications require full explanations and some specific reference to both South America and Australia fulfilled the brief. A full description and explanation, with valid exemplification of the economic consequences of ENSO was required in response to this question.
- (b) (i) This question about anticyclones was quite popular. However, although most candidates could describe the associated weather conditions, their assessment of the opportunities provided by such weather conditions was often non-specific and vague and tended to be focused upon summer rather than winter anticyclones. Although the heat-wave of 2003 was mentioned details tended to be lacking about the location, number of deaths and the demographic characteristics of this spike in deaths. This point provided a good counterbalance and aided the evaluation of the idea of opportunities and the flip side of challenges posed by such extreme conditions of heat. Retail sales were mentioned in many cases but not developed. The same was true of tourism and trips to the coast. There were few specific case studies, and little development to the logical conclusion of how and why the weather plays an opportunistic role socially and economically. Such a structured approach would have improved most answers (e.g. social opportunities might be summer social events like Royal Ascot, which this year due to the almost unprecedented heat-wave led to a relaxation of the usual smart dress rules). The increased sales of ice cream, salad vegetables and 'BBQ' foods and hardware boosts the economy by increasing the profits of supermarkets and BBQ suppliers and all this extra cash feeds into the GDP figures. This sort of detail helps a response reach higher level marks. Time and money is lost as Network Rail introduce speed restrictions on tracks due to potential buckling due to the heat and even tarmac can melt causing road closures, traffic congestion and loss of time and money for those using roads. More water is sold so periodic markets and street vendors can find themselves making extra money and therefore this increases overall spending power which feeds back into the economy producing greater affluence overall.
- (ii) Perhaps this question produced the greatest variation in response and produced some of the lowest marks for candidates. The subject of the question is 'the **impacts** of global warming', not as many candidates read it the **causes** of global warming. Many wrote about causes i.e. the attempts to reduce carbon emissions instead of concentrating upon sea expansion and sea level rise, changes to agricultural production, changes to weather patterns like increased storm activity, rainfall, warmer summers and milder wetter winters. A good way of approaching the response would be to consider the environmental, economic, social and political impacts but no candidate chose this method of approach which was a pity. Such an approach provides a structure for the response and is a clear way of organizing the material. Many candidates managed to achieve a Level 2 mark but little more, therefore depressing the overall mark for **Question 6**.

This is a good example of a question where candidates should read the question carefully.

# GEOGRAPHY

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**Paper 9768/02**  
**Global Themes**

## **Key messages**

- Knowing the content of the Generic Mark Scheme (GMS) and understanding its application is fundamental to success. All pieces of extended writing for Paper 2 are assessed using this framework.
- The skills of deconstructing the question set and planning to address all its elements are highly valuable.
- As extended writing, Paper 2 essays need to be of appropriate length in order to develop in both depth and detail. Short pieces of work (in most candidates' handwriting, two sides of an Answer Booklet or less) are unlikely to achieve high Level awards. The vast majority of essays this year were of an appropriate length, including some long pieces.

## **General comments**

This eighth examination of Cambridge Pre-U Geography (the first of the revised syllabus) saw a slight decrease in candidates from 2016, and the cohort remained relatively small. Coverage of the syllabus is uneven in terms of choices, with no essays this year on two Themes: People, place and conflicts, Energy and mineral resources and Tourism spaces.

Knowing and understanding the GMS is foundational to achievement on Paper 2. Teachers are encouraged to use the GMS with candidates throughout the teaching programme, both as a measure of achievement for a piece of work and as a means of demonstrating areas for improvement.

One way to enhance performance is to develop the skills of deconstructing the chosen title into its constituent elements, e.g. command word to follow, subject area, key idea(s). Then a candidate can plan to answer the actual question set, and to cover all aspects of the question. This both assures success with the bulleted descriptor in the GMS concerning focus and keeps the response away from irrelevance or the tendency to go off into straight recall of learned material.

Rewards to individual essays were made using all 5 Levels of the GMS, with Levels 3 and 4, as expected, being used the most intensively. There were a few responses of exceptional quality seen this year. At this Level, accurate, detailed and confident evaluations were presented. A small number of essays were awarded marks in Level 1 usually for failing to follow the advice in the previous paragraph.

In assessing responses, the GMS is used along with indicative content for each question. This indicative content is prepared from the syllabus content and from contemporary geographical thought, research and publications. Whilst the GMS captures the essential qualities of responses in 5 mark bands, the indicative content is what the name implies: some indication of the probable content or possible approaches to the questions and titles set. Examiners do not expect to find all the indicative content in any one response and candidates are free to develop their own approaches in their essays.

The quality of written communication was satisfactory to excellent (this has notably improved over the lifetime of the syllabus), outstanding work being seen in the vocabulary for and expression of analysis, evaluation and argument in particular. Candidates showed a knowledge base ranging from sound to impressive. The best candidates focused clearly on the demands of the question and showed a mature understanding of the subject matter, supporting their discussion with appropriate and located examples.

Organisation is one of the assessment criteria for extended writing in Pre-U Geography. Well-structured responses tended to have a discernible beginning (introduction), middle (evidence, analysis and argument) and an end (conclusion). As in previous years, the quality of introductions proved a good discriminator. A purposeful targeted start, which accurately defined key terms in the question, generally led to a well-structured, focused essay. Many effective conclusions were seen, that drove home the candidate's position and did far more than simply recap the key points of the essay. All essays need a conclusion (the seventh bullet point in the GMS) and those that lacked one were marked down.

There was little evidence that candidates had suffered time issues and there were no infringements of rubric.

### **Comments on specific questions**

#### **Section A**

#### **Migration and Urban Change**

##### **Question 1**

This was the more popular question on this topic. Several candidates provided lucid evaluations of the utility of migration models in explaining contemporary migration movements. Models frequently discussed included Ravenstein, Lee, Stouffer, Todaro and Zipf. Attempts to use Friedmann were less convincing. Movements included internal Chinese rural-urban, refugee, counter-urbanisation and intra-EU migrations. Inevitably with an evaluative question, a modicum of balance was required, though certainly not parity between agreement and disagreement with the statement. Stronger candidates were able to discuss contemporary flows and evaluate whether migration models informed understanding of these (or not). Weaker candidates often described the models and tried to apply current flows to them, often in an unstructured way, with candidates unwilling to reject the models. Several offered a poor time perspective, not stating clearly or appreciating the age of most models.

##### **Question 2**

Answered by a minority and responses were generally weak. Since the question was set in 2015, the issue of refugees has barely left the news (e.g. UK inertia on accepting Syrian refugees, the backlash to Germany's more liberal stance, the EU-Turkey deal and the election of President Trump). The 1951 Geneva Convention still remains the basis of international law here, but was generally poorly understood by candidates. The attempts of the international community to stick to its principles have raised many of the contradictions and challenges facing recipient countries. Most candidates wrote descriptive responses without the Knowledge required to access higher mark levels.

#### **Trade, Debt and Aid**

##### **Question 3**

Fewer candidates chose this question as it tested an explicit and fairly narrow part of the topic. Candidates were generally able to discuss the positives and limitations of the WTO by discussing the liberalisation of trade and free trade, whilst acknowledging the perceived dominance of the WTO by HICs and protectionism through trade blocs (although there was little mention of the trade implications of Brexit or President Trump's avowed protectionism). Most candidates coped with the global nature of the question and pitched their exemplification and discussion at an appropriate scale. The best answers really evaluated the 'force for good' aspect of the question whilst using a range of named and located examples to support their discussion. Weaker answers tended to be more descriptive in content and less balanced with a focus on either the positives or negatives of the WTO.



#### Question 4

This was a more popular question and candidates generally answered the question well. Most candidates approached the question by identifying the relative positives and negatives of international aid by comparing the 'top down versus bottom up' approach, or systematically discussing the consequences of different forms of aid. It was evident that candidates were able to draw on a wide range of examples to support their discussions, many probably learned in Paper 3 topics. Weaker answers tended to give an unbalanced answer more focused on emergency aid and its benefits and limitations. Stronger answers identified a wide range of different forms of aid, and discussed the consequences by using a range of exemplar material, also demonstrating balance between positive and negative consequences. The best answers addressed the scale on which aid was being used, as well as its consequences.

#### People, place and conflicts

No responses were received on this topic

#### Section B

#### Energy and Mineral Resources

No responses were received on this topic

#### The Provision of Food

#### Question 9

Fewer candidates answered this question although those that did tended to score well. Candidates were able to demonstrate a good understanding of 'land grabs' and the aim to intensify agriculture. They then discussed the resulting impacts on local communities, the environment, and global food supplies. Most candidates exemplified this issue using examples of land grabs in Africa, and in particular the Gambela region of Ethiopia and examples from Mozambique. Stronger answers were characterised with a clear definition of sustainability in the introduction, and a better knowledge and understanding of land reform. These answers discussed land grabs and land reform in the context of scale, the environment, and the potential for increasing global food supplies. Weaker responses tended to focus more on land grabs, and were not able to examine land reform and its impact on the sustainability of global food supplies. This was disappointing as land reform is a key issue for the provision of food both in HICs (e.g. the amalgamation of fragmented land holdings encouraged by the EU) and LICs (e.g. absentee landlords, latifundia, protest movements of landless peasants and post-colonial land re-allocation). Candidates who were tempted to broaden the question into many of the other factors to 'ensure sustainable global food supplies' needed to convincingly dismiss both parts of the question beforehand as the question was deliberately set with a narrow focus.

#### Question 10

The more popular option of the two questions on this topic. A common approach, which generally worked well, was to evaluate in turn the role of transnational corporations (TNCs) and then non-governmental organisations (NGOs) in the sustainable feeding of a growing world population. Many candidates contrasted the 'top down versus bottom up' approaches, and most grasped the importance of discussing sustainability. Stronger answers were characterised by balance in the discussion between TNCs and NGOs, and were able to discuss these in the context of the global scale the question required. These answers were well exemplified and demonstrated excellent evaluation of the relative sustainability of the examples that they had chosen to discuss. Weaker answers were typically more unbalanced with a focus on TNCs or NGOs. They tended to be more descriptive and didn't manage to evaluate or address the global scale required. Many candidates struggled to give convincing TNC examples (e.g. Monsanto, Cargill, Del Monte) and provided general answers. 'Agribusiness' does not inevitably mean TNC and it was very hard to make fast food TNCs (McDonalds, KFC) wholly relevant to this question.

#### Tourism Spaces

No responses were received on this topic.

# GEOGRAPHY

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Paper 9768/03  
Geographical Issues

## General comments

The paper was a fair test of candidates' knowledge and understanding at this level and across the broad range of geographical concepts and issues. Responses exhibited an impressive range of knowledge and understanding, coupled with the ability to present a cogent argument. This last point is an important one as many questions possessed a component where reasoned assessment was required. This is especially true of the essay questions in **Section C**. This analytical ability not only reflects well on the candidates but also on the teaching. However, there were instances where the conclusion came right at the beginning of the answer rather than being at the end as a result of reasoned argument. Most candidates performed extremely well on the resource based questions showing a good ability to analyse often contrasting methods of displaying information. Excellent marks were usually achieved for these questions. Some Physical Geography and many Human Geography questions received excellent responses, but, as in previous years, there was a difference in the levels of knowledge and understanding between the two components. Answers to the Physical Geography questions were sometimes deficient in some respects. Thus was especially true of answers in the Hydrological Hazards option. The slight increase in standard of the hydrology answers, noted in the 2016 report, was not maintained. This discrepancy between Physical Geography and Human Geography may reflect the different nature of the questions and perhaps a lack of realisation of the precision needed when discussing physical topics. The deficiency often involved an incomplete understanding of basic concepts and physical processes. The interaction between physical processes and human activity was better understood. However, it needs stressing that to evaluate this interaction, it is important to possess a thorough understanding of the operation of the physical processes. Some of these issues are taken up when specific questions are discussed. The answers to questions in **Section C** were often excellent and the breadth of knowledge and understanding shown by a significant number of candidates was remarkable. However, there were some instances where the full implication of the question was missed.

Overall the paper was completed by most candidates, although there were occasional indications of time management issues. As noted previously, some candidates failed to match the marks available with the length of time required for sub-questions. This led to the answers to questions in **Section C** sometimes appearing somewhat rushed. The volume of information provided by many candidates was very impressive. As with last year, a significant number of candidates attempted **Section C** before answering the **Section A** and **Section B** questions. This can be an efficient strategy but, in a few cases, it was apparent that this led to the last question, usually in **Section B**, to be rushed and to be unfinished.

## Comments on specific questions

### **Section A**

#### **Question 1**

- (a) Most candidates were able to state two secondary hazards associated with earthquakes.
- (b) There were many excellent responses to this resource with a comprehensive analysis of the table. Occasional answers were somewhat limited by simply concentrating on one or two of the earthquakes.



- (c) Much of the emphasis in the answers was on the respective levels of development of the countries concerned. However, there were many answers which explored other factors such as time of the day, population density, nearness to the epicentre and bedrock conditions. There were a few ingenious, but relevant suggestions, such that methods of management have improved over the years, thus the effect of more recent earthquakes might reflect this.
- (d) The response to this question was good. Answers were often very detailed although the assessment part of the question was often treated in a rudimentary way. This often restricted the marks to the top of Level 2.

### Question 2

- (a) This question posed a few problems. It was expected that candidates would choose two of the categories noted in the syllabus namely; by scale, by nature of the hazard, by scale or intensity such as wind speed. However, some candidates classified them in terms of their effects, such as by the number of casualties. This is a classification of effects not a classification of the hazards.
- (b) Most candidates were able to provide a good analysis of the pattern of potential flooding. Some descriptions were extremely thorough.
- (c) The response was predicated on a thorough understanding of the factors needed for the development of tropical cyclones and then an assessment as to how climate change might affect these factors. The former was generally well understood. However, the argument about the effect of climate change was often very simplistic. Most answers stressed the warming of the oceans. Few explored the effect on air masses and global circulation as a result of climate change.
- (d) Most responses chose to discuss tropical cyclones as the meteorological hazard, although tornadoes were sometimes discussed. The three generic elements noted in the syllabus are prediction, prevention and mitigation. Prevention is largely impossible, although suggestions for cloud seeding were made and assessed. Most of the answers concentrated on mitigation, especially hard engineering to combat storm surges and flooding. The detail was often good.

### Question 3

- (a) This question posed few problems with most candidates having an understanding of throughflow even if the definitions were often somewhat imprecise. There was the occasional, usual, confusion with throughfall.
- (b) Most candidates were able to provide a good comparison of the maps of rainfall, although detail was sometimes lacking.
- (c) The response to this question was relatively weak. Many candidates were unable to draw realistic diagrams of a storm hydrograph. Rock type was often described in very simplistic terms and there was often confusion between porosity and permeability. Most candidates assumed that the rock was at the surface ignoring the fact forgetting that, in most cases, there would be a soil layer above the rock. The influence of rock type on the nature of the soil and thus the relationship between infiltration, throughflow and overland flow, was rarely mentioned.
- (d) It is quite clear from previous years and by answers to this question that candidates are much happier answering with respect to hard engineering. The range of soft engineering procedures was somewhat limited. There was also confusion over the difference between soft and hard engineering techniques, with some hard techniques, such as artificial levees, being assigned to soft engineering. Catchment management as a means of preventing rivers from flooding was mentioned in very few responses. There was an element of assessment to this question and many candidates argued that it was very difficult to prevent the biggest floods with soft engineering techniques. All that can be hoped is that the techniques could reduce the scale of the flooding, which was a very reasonable conclusion.

## Section B

### Question 4

- (a) Most candidates were able to offer two relevant characteristics.
- (b) Candidates had little trouble in describing the variations in crimes against property with many maximum marks awarded.
- (c) Most of the elements in the Mark Scheme were discussed but sometimes with variable detail. The concept of defensible space was understood by all.
- (d) This was a wide-ranging question. Most answers were also wide ranging with perhaps the assessment component a little simplistic. Thus, answers tended to assume that all the social impacts were similar in their effect on communities.

### Question 5

- (a) Definitions were often incomplete. Many candidates omitted 'expected' in their definitions. Average was also often omitted. Thus many candidates defined life expectancy as the number of years a person is expected to live.
- (b) The variations in life expectancy were described in a very thorough way by most candidates.
- (c) A very accessible question that was answered well by most candidates. Most of the elements noted in the mark scheme were discussed.
- (d) Although the question was about international migration, some candidates interpreted it as international movement. This interpretation was credited because it was the consequences of the movement/migration that was the crux of the question. The few candidates that did discuss migration were given credit for it. There were many well-argued responses suggesting that the nature of the disease was important. Many diseases are not spread by human contact thus would not be relevant. Also, there were many arguments to the effect that with increasing international migration there are much tighter border controls. Thus, the statement was not true. These answers were very encouraging.

### Question 6

- (a) The question posed few problems.
- (b) Some responses did not describe trends particularly well with a tendency to describe the data point by point. However, for the majority of candidates this resource was described and assessed extremely thoroughly.
- (c) There was some confusion over the interpretation of this question. Some candidates interpreted it as a question on poverty *per se* ignoring the concept of the 'poverty trap'. Answers also examined the question on a number of scales from national poverty to individual poverty. It was more difficult to discuss the concept of a poverty trap at the national scale.
- (d) Some excellent responses were seen to this question. The knowledge and understanding was very impressive, especially with respect to neo-Marxist theories. The theories had clearly caught the imagination of many students.

## Section C

### Question 7

This was the most popular question in **Section C**. Responses were generally well-informed. Haiti was the area that most candidates used as their example. Detail was often excellent and many answers were well structured. There was sometimes uncertainty over the meaning of vulnerability. This was an instance where defining vulnerability at the start of the answer would have helped the structure of the answer. Many responses took vulnerability as read without defining the way it was being assessed. But, in general, answers were well structured and the conclusions were generally based on reasoned argument.

### **Question 8**

This needed to be related to a specific area that had been studied in detail. Whereas most answers were based on a specific area with numerous geographical issues, there were a few instances where the chosen area was limited in geographical issues. This made a full answer difficult. As with the vulnerability problem in **Question 7**, a vigorous interpretation of serious was needed. There is no absolute definition of the term serious, but there needed to be some discussion as to how it was to be interpreted in the answer. This notwithstanding, there were many exemplary efforts.

### **Question 9**

There were very few answers to this question which means it is not possible to make general statements.

### **Concluding remarks**

In conclusion, it is only necessary to reiterate comments made in previous years. The responses of most candidates were informative and wide-ranging. Many answers demonstrated detailed and accurate knowledge with clear, high order understanding of the subject content. Examples were sometimes partial and not relevant but in general they were used effectively and were relevant and detailed. Most questions were interpreted correctly apart from the occasional misinterpretation. However, a failure to define the main elements in questions often led to weakly structured responses and some irrelevant discussion. There were a few instances of time management issues with some unfinished answers.

# GEOGRAPHY

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**Paper 9768/04**  
**Research Topic**

## **Key Messages**

The increase in standard noted last year was again apparent this year. Centres and candidates are to be congratulated on their performance.

Candidates seem to have taken note of the general comments in last year's report about the skills questions (no credit for offering explanation) and the use of examples which don't simply repeat a point already made by another example.

The 2016 Principal Examiner's report also contained useful advice about the individual research project and the 15 mark questions which are used to assess it and Centres are advised to read this generic advice once again.

A word about anomalies. For many candidates, the default approach to anomalous findings in their investigation seems to be to ignore them. In fact, at this level, being able to handle an anomaly is often the best way for a candidate to show to the examiner their depth of understanding of their chosen research topic. It is probably not an exaggeration to say that the last thing a candidate at this level wants is a project without any anomalies! To ignore an anomaly is to lose an opportunity to impress.

How much data should candidates collect during their fieldwork? The answer is sufficient to allow a meaningful investigation to take place. Sampling 3 or 4 sites along a river is unlikely to produce enough data to make the investigation worthwhile. On the other hand, there is a point beyond which any extra data recorded may not improve the reliability or accuracy of the investigation. It is impossible for Examiners, without detailed knowledge of the locality, to make a recommendation about exactly how much data to collect. It is for candidates (with guidance from Centres) to decide for themselves. Other factors they should consider include the amount of time available and also how much data is required for meaningful statistical analysis to take place. Spearman requires a minimum of 15 pairs of data. If time constraints prevent one candidate from collecting sufficient data, it is acceptable for data from different candidates to be pooled. However, each candidate must be doing a different investigation, even though they might be engaged on a similar topic.

There was no evidence that candidates ran out of time. However, those candidates who choose to do the longer questions first must ensure they leave sufficient time to do themselves justice in the data response questions.

## **Comments on Specific Questions**

### ***Section A Retail Patterns***

#### **Questions 1, 2, 3 and 4**

There were too few responses to these questions to make any meaningful comment.

### ***Section B Managing Rural Environments***

#### **Questions 5, 6, 7 and 8**

There were too few responses to these questions to make any meaningful comment.

### Section C Fluvial Geomorphology

#### Question 9

- (a) The overwhelming majority of candidates had few problems here and coped well with the demands of interpreting the Hjulstrom graph.
- (b) This was answered well by candidates who focused on the erosion line of the graph. The best answers described the two trends shown by the erosion line and supported their answers with data from the graph. Weaker responses made reference to transport and deposition, neither of which were creditable.
- (c) There were many good responses here. The best answers discussed the evidence both for and against the assertion in the question, supporting their comments with data taken from Fig. 8, then went on to make a balanced judgement based on their evidence. Candidates mostly used quartz in favour of the assertion and limestone against. The judgement came in deciding whether flint does enough to support the assertion or not. The best candidates drew the anomalies at 120 to 160 km from the river source into their discussion. Weaker responses came from those who appeared less comfortable with handling the diagram and tended to lose sight of the requirement to make a judgement.
- (d) The best answers here dealt with each resource, explaining why they might be of use and also addressing their limitations. Candidates also referred to other resources which might be of use e.g. data about other rivers, local geology, climate, characteristics of the drainage basin and land use. They then went on to make an assessment as to the usefulness of the resources to those investigating downstream changes in the load of rivers as required by the question. The question asks about the "information provided" in Figs 7 and 8. Answers making reference to the technique (e.g. the use of colour, thickness of lines) were of limited relevance and attracted little credit.

#### Question 10

- (a) There were many good answers to this. The best responses named three fluvial landforms and correctly located them, using multiple squares where appropriate. For example, the river cliff in squares E2 and E3.
- (b) Good answers addressed both parts of the statement in the question, supporting their answers with named examples. Useful reference was made to the high potential energy and the dominance of vertical erosion in the upper course compared to the greater role of kinetic energy and lateral erosion and deposition further downstream. The best answers finished with a concluding statement e.g. "the core processes of erosion, transport and deposition occur throughout the river's course, but occur differently according to local factors such as gradient, sediment size and hydraulic radius." Weaker responses tended to describe landform formation, sometimes at little more than GCSE level. They could have been improved by focussing on the evaluative part of the question.

#### Question 11

This question was tackled quite well by a number of candidates. Good answers were characterised by a discussion of the benefits and limitations of a range of presentation techniques along with a consideration of how the technique had enhanced the candidate's chosen investigation. Scatter graphs, line graphs, cross sections, graphs located on maps and Spearman's Rank Correlation test were commonly discussed. When discussing scatter graphs, candidates should make clear which variable they are plotting on the x-axis (the independent variable) and which on the y-axis (the dependent variable). Weaker responses tended to simply describe the presentation techniques used without reference to the evaluation required by the question. Often candidates tried to ignore anomalies, whereas the strength of some of these graphical techniques is to help identify such anomalies and thus enhance the investigation.

A significant number of candidates did not mention maps of any kind – it is difficult to see how, in a Geography investigation, a map (or maps) would not enhance the investigation.

At this level candidates should try to introduce a statistical analysis. Spearman is commonly described, but the reason it is often chosen over the Pearson Product-Moment test is that the latter, though the more accurate of the two because it uses measured data rather than simply ranks, requires a normal distribution of data. Such a distribution can rarely be guaranteed with data collected in the field, so it is safer to use Spearman to confirm both the strength of the suspected correlation as well as the probability the correlation occurred by chance. For many candidates their answer would have been improved if they had made these points.

Making a convincing evaluation is much easier for those candidates who have a clearly worded hypothesis or question for their investigation. There is guidance on this in the 2016–2018 syllabus (page 15). Titles such as “My investigation was to find out how variables such as velocity, cross-sectional area and bedload size and roughness change moving downstream” are too nebulous and make it very difficult for candidates to make judgements about the success, or otherwise, of their investigation.

### **Question 12**

A popular choice of question. There were some good responses. The syllabus lists the following as possible considerations – be at a suitable scale; provide opportunity for research; be clearly defined with named locations; be based upon wider geographical theories, ideas or concepts. Additionally, the issues of safety and risk management, accessibility to proposed sample sites and the limitations of the equipment available to candidates are also be relevant and were often discussed.

The term ‘discuss’ implies there should be some evaluation, perhaps in terms of the trade-off between the different criteria explored, and the best responses explored this trade-off.

Weaker responses tended to consider only a narrow range of criteria and/or failed to engage in a discussion. In a few cases, candidates wrote about choosing and developing data collection methods, wandering off the point of the question and hence gaining little credit.