GEOGRAPHY

Paper 9696/11
Core Physical Geography

Key messages

Many of the following comments have been made before but still need emphasising. Some candidates still misinterpret or seemingly ignore the demands of the question. There is the usual confusion between describe and explain. For the resource-based questions in ***Section A***, far too many candidates go beyond the requirements of the question and often include material that they then need to repeat in **part (b)** of the question. There was also a tendency to assume that **part (c)** of the ***Section A*** questions were always a follow on from the resource question and **part (b)** question. Although the subject matter will be similar and the resource might be a guide, the **part (c)** questions are often generic and require an analysis beyond the information portrayed in the resource.

The examination is not simply a factual test of subject knowledge but also a test of the extent to which candidates have the ability and the wider skills of selecting their knowledge and understanding to meet the requirements of the specific question. Specific demands are also reflected in the mark allocation of the questions. Thus, the demands of a 6-mark question are greater than those of a 3- or 4-mark question. Answers to the 8-mark questions in ***Section B*** were often very thin and lacking in detail.

General comments

This has clearly been another difficult time for many centres and candidates and their endeavours. However, the quality of many answers to this paper reflects great credit on the candidates and their teachers.

Some candidates failed to complete the paper, although there are many reasons why this might be so. There were very few rubric errors. The overall impression has been positive and there were some excellent responses to individual questions and in totality.

Comments on specific questions

Section A

Hydrology and fluvial geomorphology

Question 1

(a) (i) The majority of candidates gave the correct answer.

(ii) A variety of acceptable terms were provided by the majority of candidates.

(b) There was a good response to this question with most candidates describing the changes as well as providing accurate data from the resource to substantiate their points.

(c) The response was generally good, although most candidates restricted themselves to the main catchment flows described in **(b)** when there were other catchment flows, such as stem flow, throughflow and groundwater flow, which could be described and explained.

Atmosphere and weather

Question 2

(a) There were so many characteristics that could be described that it was rare for less than two marks to be awarded.

(b) Few candidates were able to explain the formation of hail with any degree of accuracy. Most simply explained uplift of air, cooling to freezing point followed by a fall out of the clouds. Only a very few were able to discuss the rising and falling of the frozen particles, becoming bigger and heavier with each rise and fall, until eventually falling as hail.

(c) This question, namely 'vary in one location', was misinterpreted by many candidates. Most of the answers explained how precipitation type varied from one location to another, such as from equatorial regions to temperate or polar locations, or from lowland to highland.

Rocks and weathering

Question 3

(a) (i) Most candidates interpreted the resource correctly.

(ii) This was answered correctly by the majority of candidates, although there were a few who identified it as a convergent plate boundary.

(b) It was possible to draw either a cross-section or a plan view of the plate boundary. Both were acceptable. The key element was its identification as a destructive, convergent boundary with the features (subduction zone, fold mountains, ocean trench, volcanoes) associated with such a plate boundary. Many sketches were very informative. It was good to see that accretionary wedges are increasingly now being recognised as important features of such a plate boundary.

(c) The accuracy and detail of answers to this type of tectonic question have been increasing lately and it was pleasing to see this development continuing. This improvement was especially prevalent in explanation of the formation of ocean trenches and fold mountains.

Section B

Hydrology and fluvial geomorphology

Question 4

This was the most popular option.

(a) (i) There was some uncertainty over the meaning of cavitation, but most candidates had some understanding of the process. Suspension was clearly understood by most, even if there was a tendency to describe suspension as when fine particles are 'suspended' in the river. Clearly an alternative mode of description was needed.

(ii) Point bars are clearly related to the development of meandering channels. This was understood by many candidates, but there was a minority of candidates who were unsure of this and described the formation of bars and eyots in braided channels, and sometimes confused point bars with riffles. The formation of point bars is clearly related to the cross-channel flows in a meandering channel, and the development and operation of these flows, with a contrast in velocity to allow the sediment to be deposited, are a crucial part of the process.

(b) Most candidates achieved some marks in their response to this question. The better answers were those which were based on actual examples of river floods and their impacts. Such an approach was generally needed to obtain a Level 3 mark. Level 3 indicators state that responses should be 'well founded in detailed knowledge and strong conceptual understanding' and that 'any examples used are appropriate and integrated effectively into the response'. Many answers were purely generic and lacked the authority to gain more than a Level 2 mark. The question also asked for explanation, whereas many answers were simply descriptive and tended to be merely a list of possible impacts. A few candidates recognised that floods can be beneficial as well as negative.

(c) Some candidates failed to recognise the significance of three components of the question. 'Intensity' was missed by many candidates who simply referred to amount of precipitation. 'Most significant' was ignored by many with answers simply explaining the factors that could affect the shape of the storm hydrograph. 'Shape' was a key component in the question and some candidates failed to analyse the influence on the shape components of the hydrograph. However, relevant factors other than the intensity of precipitation were recognised by most candidates, even if the evaluative element in the question was forgotten. However, there were some excellent answers with many candidates arguing that it was very difficult to isolate the factors that affect the shape of storm hydrographs as the hydrographs reflect the totality of the factors operating in drainage basins.

Atmosphere and weather

Question 5

This was the least popular option.

(a) (i) Albedo seems to be well understood and most candidates who attempted this question were able to obtain some marks.

(ii) The overall response to this question was very weak. In past papers where a diagram of the global energy budget was provided for analysis, candidates rarely had trouble in explaining the surplus and deficit. However, faced with a question phrased as this one was, some candidates failed to describe where the deficit occurred and were unable to explain the deficit in simple terms. Distance from the sun is still, unfortunately, an explanation favoured by many.

(b) The difficulty that candidates faced with this question was to explain how the temperatures of the ocean currents influenced the temperatures of the adjacent land mass. Knowledge of the various ocean currents was good but the horizontal transfer of energy, essentially by winds, was often ignored. Some candidates thought the question related to land and sea breezes rather than ocean currents. Contrasting thermal conductivities between land and sea was sometimes invoked as an explanation.

(c) This was a standard urban climatology question but framed in a slightly different way. It was a question that clearly asked for the evaluation of significant climatic effects that are the result of the nature of the urban environment. One of these effects is on humidity but others include temperature, precipitation and wind. Unfortunately, humidity seems to be less well understood than the other factors. Many candidates believed that humidity was higher in urban areas, whereas the majority of studies have shown that humidity in urban areas is, in general, lower than in surrounding areas, although there will always be anomalies. However, most candidates realised that it was a standard urban climatology question and answered it quite satisfactorily.

Rocks and weathering

Question 6

(a) (i) The process of pressure release (dilatation) was understood by most, although the extra point about how it produced weaknesses and joints (cracks) in rock was often omitted. Hydrolysis was sometimes confused with hydration, but most candidates equated it with the weathering of granite and the production of kaolin, even if the precise chemical process was sometimes confused.

(ii) Most answers contained relevant points even if the precise mechanism whereby water reduces the strength of materials, thus initiating mass movement, was unclear. There was the occasional confusion between mass movement and movement by water such as rain splash.

(b) There were many excellent answers with the main processes of freeze-thaw, heating and cooling and salt crystallisation being well explained. Some candidates even identified temperature affecting vegetation growth and thus root action.

(c) The level of detail in many answers was exceptional with many candidates basing their answer on a detailed case study, although there was the opportunity of using examples from a number of specific examples. The latter approach allowed a greater variety of strategies to be assessed than

might have been possible in a single location. The problems faced by Hong Kong in combating mass movement featured prominently, but there were many other examples which made the marking of the question very interesting and informative. In most cases there was a good evaluation of the success or failure of the attempts to reduce mass movement.

GEOGRAPHY

Paper 9696/12
Core Physical Geography

Key messages

Candidates need to be clear that they understand the demands of both ***Section A*** and ***Section B*** before they start their answers. In ***Section A*** there are different compulsory questions, testing both knowledge and understanding. Data analysis is required, and the data can appear in a variety of formats. Candidates should be familiar with the wide range of statistical, diagrammatic and photographic evidence that might be used and be prepared to use the material beyond the narrow demands of a particular question.

'Describe' and 'Explain' continue to be the main thrusts of ***Section A*** questions, but many fail to differentiate between them. Simple descriptions, for example, were all that were required in **1(b)**, but many candidates offered quite sophisticated explanations, which should have been the focus for **1(c)**.

Candidates need to carefully consider the requirements of specific questions before they attempt their answer. Furthermore, the mark allocation shown for each question can often indicate the detail required. For example, the 4 marks offered for **1(b)** would suggest that four valid points might be expected, but perhaps fewer if developed in detail. **2(c)**, for example, was worth 5 marks, and it should be clear that the relevant processes need to be discussed in some detail to achieve high marks. Some answers were brief and omitted process detail.

Much Geography lends itself to diagrammatic illustration to achieve clarity. Cross sections are sometimes required, but the accurate location of detail is essential to achieve high marks. Block diagrams can also be a useful means of illustration. Both **6(a)(i)** and **6(a)(ii)** would benefit from such illustration, but this seems to be a skill that is less commonly taught and used.

Time allocation does not appear to be a problem. Most candidates completed the required answers, but there is a suggestion that more thought should be given to evaluation/assessment, a very important component of answers to **4(c)**, **5(c)** and **6(c)**. Better candidates incorporate evaluation into the main body of their answers, and often together with detailed case study material.

General comments

This has once again been a difficult year for many candidates, and it is much to their credit that they have achieved so much. Many candidates performed effectively in the examination, and this reflects positively on their attitude and commitment and on the effectiveness of the teaching.

The paper tested candidates on a wide range of topics, and many displayed a clear understanding of those topics. All optional questions in ***Section B*** were attempted, but there is still a reluctance to choose Atmosphere and weather.

As referenced in Key messages, diagrams could be used more effectively to enhance answers. Each of **Questions 4**, **5** and **6** offered opportunities for diagrammatic support, but this was rarely seen in terms of detail and accuracy. Nevertheless, candidates displayed a good knowledge of many broad concepts such as mass movement but were more hesitant when explaining more specific processes such as mass movement heave.

There were few rubric errors. Use of English continues to be impressive in terms of clarity of expression, although the interpretation of the precise demands of questions is somewhat weaker. Command words have historically been a problem, but for this examination 'Describe', 'Explain' and 'Evaluate' were dominant. Some candidates continue to offer explanations when only descriptions are required, and the evaluations

that accompany the ***Section B*** answers can lack detail. The most effective essay answers incorporated exemplar material into the answers themselves, and not just as a brief addition at the end.

Comments on specific questions

Section A

Hydrology and fluvial geomorphology

Question 1

(a) Most candidates are clearly familiar with a storm hydrograph, and both parts of **(a)** were generally well answered. A few confused the precipitation axis with the time axis.

(b) This was well answered. Candidates clearly understood the effects of deforestation and achieved high marks. Some, however, drifted into explanation.

(c) Reasons given sometimes lacked clarity, and several candidates had mistakenly already offered the reasons as part of their answers to **(b)**.

Atmosphere and weather

Question 2

(a) A wide variety of characteristics were acceptable, and so most candidates achieved 2 marks.

(b) There was a basic understanding of condensation within cooling air, and therefore the concept of dew point. However, few related fog to radiation and/or advection cooling, or elaborated on condensation.

(c) The concept of orographic uplift was not always discussed in sufficient detail, and there was often too much emphasis on the rain shadow effect, which is irrelevant in this context. There were 5 marks available for this question, and details of the processes involved are essential to achieve high marks.

Rocks and weathering

Question 3

(a) Both parts of this question were generally well answered.

(b) This was not as well answered as expected. Cross sections are a very common technique in Geography, but in this instance the location of the landforms was too often imprecise.

(c) Most candidates were able to choose an appropriate landform, but many then incorporated a variety of landforms into their explanations, and often superficially. There should have been more focus on the specified landform.

Section B

Hydrology and fluvial geomorphology

Question 4

(a) Most answered **(a)(i)** well, and some even included helpful diagrams. **Part (a)(ii)** was not well answered, despite the wide variety of acceptable points suggested in the mark scheme. Furthermore, there was some confusion between pool/riffle and river cliff/point bar.

(b) There were some excellent answers which gave accounts of floodplains, levees and braiding, together with the positive and negative aspects of flooding. There was, however, a tendency to drift into agriculture, away from the natural (physical) environment.

(c) There was some confusion between groundwater storage and surface runoff. The better answers were those which treated groundwater storage as part of the hydrological system and displayed an awareness of the other influences upon it, apart from water abstraction.

Atmosphere and weather

Question 5

(a) Candidates scored well on the definitions in **(a)(i)**, but few were secure in explaining latitudinal radiation surplus in **(a)(ii)**. The implication of the angle of the sun's rays was not discussed in convincing detail.

(b) Candidates were usually aware of the seasonal shift and migration of the ITCZ but could not clearly relate this to high and low pressure belts. Attempts to illustrate these changes were largely unsuccessful.

(c) This was a more accessible question for most candidates. Urban climates are generally clearly understood and well taught. Temperature and precipitation figured prominently, but some of the answers were unbalanced by the emphasis in this instance on wind.

Rocks and weathering

Question 6

(a) In **(i)**, characteristics of flows were known, but many candidates misread the question and wrote about many different sorts of mass movements, rather than restricting their answer to flows.

In **(ii)**, some candidates confined themselves to freeze-thaw, rather than approaching heave in a more holistic way.

(b) It was very reassuring to see the depth of knowledge of both chemical and physical weathering processes. Furthermore, many attempted to consider both the type and rate of weathering. There were many convincing attempts to assess the specific role of rainfall.

(c) There were some convincing answers, but some wrote in too much detail about the causes of mass movements. Most were familiar with the various methods of limiting mass movements, but the most convincing answers contained detailed exemplar/case study material, such as Hong Kong. A detailed analysis of attempts to reduce mass movements in Hong Kong supported some excellent answers.

GEOGRAPHY

Paper 9696/13
Core Physical Geography

Key messages

Candidates need to be clear that they understand the demands of both ***Section A*** and ***Section B*** before they start their answers. In ***Section A*** there are different compulsory questions, testing both knowledge and understanding. Data analysis is required, and the data can appear in a variety of formats. Candidates should be familiar with the wide range of statistical, diagrammatic and photographic evidence that might be used and be prepared to use the material beyond the narrow demands of a particular question.

'Describe' and 'Explain' continue to be the main thrusts of ***Section A*** questions, but many fail to differentiate between them. Simple descriptions, for example, were all that were required in **1(b)**, but many candidates offered quite sophisticated explanations, which should have been the focus for **1(c)**.

Candidates need to carefully consider the requirements of specific questions before they attempt their answer. Furthermore, the mark allocation shown for each question can often indicate the detail required. For example, the 3 marks offered for **1(b)** would suggest that three valid points might be expected in terms of a complete answer. **1(c)**, for example, was worth 5 marks, which suggests a variety of reasons and an attempt to develop at least some of them.

Much Geography lends itself to diagrammatic illustration to achieve clarity. Answers to questions such as **5(b)**, **6(a)(i)**, and **6(a)(ii)** would benefit from such illustration, but this seems to be a skill that is less commonly taught and used.

Time allocation does not appear to be a problem. Most candidates completed the required answers, but there is a suggestion that more thought should be given to evaluation/assessment, a very important component of answer to **4(c)**, **5(c)** and **6(c)**. Better candidates incorporate evaluation into the main body of their answers, and often together with detailed case study material.

General comments

This has once again been a difficult year for many candidates, and it is much to their credit that they have achieved so much. Many candidates performed effectively in the examination, and this reflects positively upon their attitude and commitment and on the effectiveness of the teaching.

The paper tested candidates on a wide range of topics, and many displayed a clear understanding of those topics. All optional questions in ***Section B*** were attempted, but there is still a reluctance to choose Atmosphere and weather.

There were few rubric errors. Use of English continues to be impressive in terms of clarity of expression, although the interpretation of the precise demands of questions is somewhat weaker. Command words have historically been a problem, but for this examination 'Describe', 'Explain' and 'Evaluate' were dominant. Some candidates continue to offer explanations when only descriptions are required, and the evaluations that accompany the ***Section B*** answers can lack detail. The most effective essay answers incorporated exemplar material into the answers themselves, and not just as a brief addition at the end.

Comments on specific questions

Section A

Hydrology and fluvial geomorphology

Question 1

(a) In **(i)** and **(ii)**, there was occasional confusion over the term catchment flows, which some confined to surface runoff.

(b) Some answers just gave a general description without using specific numerical data from Fig. 1.1 and Fig. 1.2.

(c) There should be a variety of reasons offered, but there is also the opportunity here to develop some of those reasons in more detail. See Key messages for additional comments.

Atmosphere and weather

Question 2

(a) Because of the clouds in the photograph, some candidates focussed on explaining rainfall in **(a)(ii)**. In fact, the basic explanatory points are also valid for explaining cloud formation.

(b) This was not convincingly answered. Many simply linked lack of precipitation to the fact that the sun is shining.

(c) Answers were generally weak, and this was certainly an example where a diagram would have enhanced the explanation.

Rocks and weathering

Question 3

(a) A simple description was required for 3 marks and was generally done well.

(b) The concept of subduction is clearly understood, but the asymmetrical development of the ocean trench was seldom discussed.

(c) This required a relatively simple explanation of constructive plate boundaries and subsequent ridge development. Most candidates coped well, but a number linked ocean ridges to destructive plate boundaries.

Section B

Hydrology and fluvial geomorphology

Question 4

(a) Most understood the formation of river cliffs in **(a)(i)** but attempted to link drainage density directly to drainage basin size in **(a)(ii)**.

(b) River floods were too closely linked to long-term solutions associated with hard and soft engineering projects. Short-term solutions in terms of accurate forecasting, etc., were given limited consideration.

(c) There were some sound explanations of the role of rock type and other factors. However, the effects of these factors on the shape of the storm hydrograph were less convincing and were not substantiated through helpful and accurate diagrams.

Atmosphere and weather

Question 5

Very few candidates chose this option.

(a) Candidates gained some marks from the definitions in **(a)(i)**, but the concept of the diurnal energy budget in **(a)(ii)** was not clearly understood.

(b) Most explanations were weak and unconvincing. This question required an understanding of seasonal variations of pressure based upon seasonal variations of temperature. Supporting diagrams were generally not used.

(c) Answers to this question were more convincing. Urban climates are well taught and understood, and Vancouver is often used effectively to support any discussion.

Rocks and weathering

Question 6

(a) Candidates did not always confine themselves to flows, but otherwise **(a)(i)** was competently answered. While answers to **(a)(ii)** were confined to creep.

(b) This was well answered by many candidates. There was good understanding of all types of weathering – physical, chemical and biological – and even the rate of weathering was discussed by most.

(c) Candidates dealt competently with the theoretical side of reducing mass movements. However, the relevant case study material tended towards the causes of mass movements rather than reduction, which produced some unbalanced answers.

GEOGRAPHY

Paper 9696/21
Core Human Geography

Key messages

1 It cannot be stressed enough that candidates should carefully read all parts of a question before they answer it. All too often, candidates included material in one part of the question that was relevant to a subsequent part. This was typified by **Question 3** where candidates included in **3(a)** explanation which was asked for in **3(b)**.

2 Candidates should appreciate that the marks indicate the number of points expected, so candidates are unlikely to get, for example, 5 marks when they give a single undeveloped statement. Likewise, a 3-mark question should get an answer that takes a little over half the number of lines of a 5-mark question.

3 Most candidates struggled with ***Section B*** questions, possibly due to a lack of time but mainly because they did not carefully read the question. Too many candidates achieved zero as they did not correctly answer the question because they misread or misinterpreted the focus of the question. Candidates need to appreciate that the last part of ***Section B*** answers are worth 25 per cent of the total mark and is often the key discriminator, being an evaluation, so they should leave sufficient time to do this well.

4 Candidates should appreciate that where a question asks for two or three aspects, as in **1(b)**, **2(a)**, **2(b)**, **3(a)**, **3(b)**, and they give more than the required number, the best two (or three) will be taken. It is not good practice to do more than the number asked for and should not be encouraged as it wastes time.

5 Where a question refers to a particular context such as LICs/MICs in **2(c)** and **3(c)**, candidates are expected to relate their answers to this context rather than give generic answers.

6 Candidates should avoid using vague terms such as 'resources' (typically in **Question 1(c)**) and 'technology' (typically in **Question 4(c)**) without qualifying them with some detail or development. 'Pressure on resources such as food and water supplies' would have been a more effective answer to **Question 1(c)** rather than a simplistic 'Increased pressure on resources.'

7 Good examples are needed, especially in ***Section B***, but they must be appropriately applied to the question. Some candidates simply repeated everything they had memorised about an example they had studied without applying it to the question properly, which made their answers lack focus. Also, examples should be used to support a point being made. Too many candidates give an example in name only, for instance 'e.g. India', which does not add a great deal to an answer. Candidates must appreciate that where questions ask for examples, they will not be able to access the higher levels of marks without any such examples.

Comments on specific questions

Section A

Population

Question 1

(a)(i) Nearly all candidates correctly identified the values from Fig. 1.1 and calculated the change in TFR of 4.4. Few candidates stated it was a decrease. A number miscalculated, so producing an incorrect answer.

(ii) Nearly all candidates correctly identified the year as 2003.

(b) Most candidates gave generic answers which explained why the TFR had decreased in MICs such as:

'From 1960 to 2015 women are less likely to want to conceive children so reducing the TFR in Brazil.'

In this answer the candidate tried to make their answer link to Fig. 1.1, which was not required, but then did not explain why women were less 'wanting to conceive'. In comparison, an effective response suggested:

'With an improvement in health care, especially post-natal care, more babies survive to adulthood so there is less pressure on mothers to have numerous babies to ensure at least some survive.'

(c) Broadly, this was well understood but some candidates ignored 'for a country', so compared or contrasted problems in different countries. Other answers were too vague such as:

'Along with putting a strain on resources the high TFR presses down on a country's economy – resources will run dry and the economy plummet.'

In comparison, a more effective answer is:

'A high TFR puts a strain on resources such as food and water supplies in the country as there will be increased demand, as there are more people, on limited resources. Extra funds will be needed to increase food supplies which could reduce the level of investment in economic development and building infrastructure.'

Migration/Settlement dynamics

Question 2

(a) This was well answered with a wide range of push factors. Many candidates offered generic answers that could not be identified from the photograph, such as:

'High levels of unemployment for young people.'

A more effective answer was:

'There seems only to be some farming in the valley and no factories so employment opportunities are limited in the area.'

Some candidates confused push and pull factors, for example:

'A push factor that would cause migrants to move from the area is more opportunities in an urban place such as higher paying jobs.'

(b) This was again well answered with more effective analysis of the photograph than in **part (a)**, although some pulls were logical deductions from the scene:

'The high mountains and lack of industry means there is an abundance of healthy clear air.'

Candidates should appreciate that a simple one word answer such as 'peaceful' is not sufficient to describe a pull factor.

(c) Few candidates went further than contrasting the rural-urban migration of the young working population with that of the older retired population, who either did not migrate or reversed the pattern by returning to their original rural roots. A number of candidates did not link the explanation to rural-urban migration but to migration in general or even international migration.

Some of the responses were too vague such as:

'A major reason people migrate is for work and older people may not have that ability.'

Or they focused on less important aspects such as:

'Young people enjoy things such as partying which is common in urban areas.'

A more effective response was:

'Younger people (18–25) move into cities for work or for education, especially for universities, and to access a greater range of entertainment opportunities.'

Population/Migration/Settlement dynamics

Question 3

(a) This was well answered by nearly all candidates with some giving detailed analysis such as:

'The percentage of professionals rose from 0.5 per cent to 12.7 per cent, a rise of 12.2 per cent.'

(b) Candidates were expected to link their two reasons to one or more of the changes they had identified in **part (a)**. Most did so, but some more effectively than others. Compare:

'An increase in employment has led to a decrease in unemployment.'

With:

'As the percentage of professionals has risen it suggests a shift to more tertiary jobs in the area. The service sector tends to employ more people so unemployment will decrease.'

Some candidates seemed confused over cause/effect and suggested an increase in migration into the area would result in smaller houses which in turn explained the decrease in average household size.

(c) A number of candidates missed the LIC/MICs context, so gave answers more appropriate to HICs or gave generic answers such as:

'The birth rate could be increased and death rate could be decreased so causing the population to increase.'

Such answers lack the necessary context and needed to explain why birth and death rates changed.

Some candidates contrasted pushes from inner areas, such as pollution and high rents, with the pulls of less pollution and cheaper housing in the outer areas. Others gave more developed answers such as:

'Large volumes of rural to urban migration in LICs lead to outer urban areas being developed as shanty towns as these migrants lack the resources to afford housing costs further in. As these are usually young migrants the birth rate is high so further increasing the population in these outer areas.'

Section B

This examination was characterised by consistently poor performance in ***Section B*** questions where candidates seemed not to fully understand the wording of the questions.

The majority of candidates answered **Question 4**. However, a range of candidates answered **Question 6**, but often poorly. Many answers were let down by a lack of evaluation in **part (c)** of the answers. Candidates should appreciate that exemplification is expected in **part (b)** even if not specifically asked for in the question.

Population

Question 4

(a) (i) This was well known and usually took the form of a sum with correct indication of the various age groups times 100. Some candidates inverted the sum with dependent age groups as the divider.

(ii) Many candidates ignored the need to explain the variation 'within a country' and explained why it varied over time or even between countries, usually referring to changes in IMR and migration. More successful answers often contrasted rural and urban areas such as:

'Often the dependency ratio is high in rural areas as the young working group has left to find work in the city so leaving the very young and elderly in the village, so increasing the dependency ratio. In the urban area the influx of young, usually male, workers reduces the dependency ratio and often the elderly retire to the rural area.'

(b) Many candidates explained the factors that impact on dependency ratios rather than suggesting how these led to changes in the dependency ratio in LICs. The expectation was that candidates would recognise that many LICs are decreasing their youthful dependency ratio but increasing their elderly dependency ratio as both birth and death rates fall.

Many candidates saw that medical advances and improved living conditions led to an ageing population, so increasing dependency ratios, whilst others suggested it was female education that was reducing the birth rate and so decreasing the dependency ratio. Others included the role of migration:

'Many of the young working males migrate out of the country to find work in MICs or HICs so increasing the dependency ratio by reducing the number that support the dependent groups.'

A valid point but an example would have better illustrated the point.

Many candidates lacked an accurate knowledge of the changes of dependency ratio in LICs.

(c) There seemed to be some confusion over the meaning of 'mortality'. Too many candidates explained why death rates were increasing, referring to decreases in food production (famines), wars and natural disasters.

Many candidates focused on the impact of the Green Revolution:

'The Green Revolution of specially adapted crops that greatly increased crop yields in areas such as India ensured there was less risk of famine and meant most people had healthy diets so fewer died from malnutrition or vitamin deficiency diseases such as Beriberi.'

Those that had the correct focus tended to suggest that medical advances and economic development had a greater impact on reducing death rates, so giving some assessment of the statement.

Migration/Settlement dynamics

Question 5

(a) (i) This was well understood by most candidates who had a clear appreciation that the movement is in stages and usually up the urban hierarchy. Some candidates confused stepped migration with chain migration.

(ii) Many candidates missed the reference to stepped migration, so gave generic answers on why international migration is difficult such as:

'Many countries limit entry to migrants by operating visa restrictions or some other border controls.'

This is a valid statement, but the focus was on why stepped migration is less likely at the international level, as in the following response:

'Often international migration is a movement to the main city as migrants know few other places and often may have contacts there. This means there is no real step movement up the hierarchy.'

(b) Despite the clarification that intra-urban migration meant within an urban settlement, many candidates explained movements either between settlements or linked them to rural-urban migration.

Many answers lacked detail or would have benefitted from an example which would have demonstrated clear cause and effect. Compare:

'If an area is getting run down citizens may want to move to a more appealing part of the city.'

With:

'The St Pauls area of Bristol, UK has suffered from long term decay and even riots so those that can afford to migrate have moved to more affluent areas of Bristol such as Clifton.'

A range of economic, social and political reasons were considered but often as a list. Fewer factors with more detail and development, with examples, would have produced a more effective answer.

(c) Nearly all candidates confused cause and effect and suggested that residential segregation led to intra-urban migration as like attracted like:

'Run down places will not attract high income citizens while low income citizens may need to live there because they cannot afford to live in a different area.'

And:

'All of these areas of New York are completely segregated based on power, money, race, ethnicity, etc. The only viable and safe movements to any of these areas are only allowed if migrants fall into the segregated category of the destination.'

Few candidates explained how and why intra-urban migration creates segregation, although the answer above hints at why it persists. Few candidates suggested other economic, social and political impacts of intra-urban movements, so evaluation was very limited.

Settlement dynamics

Question 6

(a) There seemed to be some confusion over the meaning of 'environmental factors', so many considered the role of urban renewal projects or even social factors.

Often the requirement to link these factors to the location of activities was ignored and few candidates offered detailed exemplification. A typical answer was:

'The risk of mass movement can cause people to completely change an activity – they can cause the death of many people. Rockslides and mudflows are all extremely dangerous.'

A more effective answer was:

'Steep slopes often limit what can be built there but may attract high class housing as such locations offer views. Typical of this is the way such slopes have seen the wealthy in Los Angeles build houses in the Hollywood hills.'

Many saw activities as soccer games or recreational activities, so gave marginal answers such as:

'If an area is swampy it would not be ideal for a soccer pitch.'

(b) There were some strong answers to this question with a clear appreciation of why manufacturing companies have moved from inner city areas to outer urban areas, often along good transport routes.

'Often the original resource that attracted the industry to that location has been exhausted or become too expensive to obtain at that location so the industry moves to a new location where that resource is available.'

A valid answer but one that needed an example to illustrate the change and so make the answer fully effective. Most answers focused on changes in access, migration of labour, anti-pollution laws and changes in the size and type of manufacturing plants.

(c) Many candidates seemed to lack any detailed knowledge of the variety, nature and extent of planning controls, so produced rather vague statements such as:

'Planning controls help make these urban settlements and set rules and boundaries that give the settlement a sense of control.'

Most candidates focused on land use zoning as the main planning control and offered some linkage to the structure of urban settlements, often via a land use model such as that of H. Hoyt.

'*By restricting certain land uses to particular areas of the city, planning controls of land use zones results in blocks of similar land uses. For example, industrial activity is often zoned along main roads or railways as they need good transport and away from high class housing.'*

Few candidates offered other political, economic, social and environmental influences on the structure of urban settlements, so limiting the evaluation. Exemplification was often very limited in detail or was non-existent.

GEOGRAPHY

Paper 9696/22
Core Human Geography

Key messages

1 Candidates should appreciate that the marks indicate the number of points expected, so candidates are unlikely to get 4 marks, for example, when they give a single undeveloped statement. Likewise, a 3-mark question can gain full marks with a short, focused answer and does not need an expansive response taking up more than half a page.

2 Many candidates struggled with ***Section B*** questions, possibly due to a lack of time but mainly because they did not carefully read the question. Too many candidates achieved low marks or even zero as they did not correctly answer the question because they misread or misinterpreted the focus of the question. Candidates need to appreciate that the last part of ***Section B*** answers are worth 25 per cent of the total mark and is often the key discriminator, being an evaluation, so they should leave sufficient time to do this well.

3 Candidates should appreciate that where a question asks for two or three aspects, as in **3(a)** and **3(b)**, and they give more than the required number, the best two (or three) will be taken. It is not good practice to do more than the number asked for and should not be encouraged as it wastes time.

4 Where a question refers to a particular context such as HICs in **1(c)** and **6(b)** or MICs in **4(b)**, candidates are expected to relate their answers to this context rather than give generic answers.

5 Candidates should avoid using vague terms such as 'technology' (typically in **Question 4(b)** and **4(c)**) without qualifying them with some detail or development.

6 Good examples are needed, especially in ***Section B***, but they must be appropriately applied to the question. Some candidates simply repeated everything they had memorised about an example they had studied without applying it to the question properly, which made their answers lack focus. Also, examples should be used to support a point being made. Too many candidates give an example in name only, for instance 'e.g. India', which does not add a great deal to an answer. Worse, too many candidates still use 'Africa' as an example of a country; it is not uncommon to see 'In many LICs such as Africa' in an answer. Candidates must appreciate that where questions ask for examples, they will not be able to access the higher levels of marks without any such examples.

7 Centres are encouraged to make use of the geography with which their candidates are familiar, as often, the best examples are those drawn from the candidates' own home country or region rather than 'standard textbook examples' which can become dated.

Comments on specific questions

Section A

Population

Question 1

(a)(i) The majority of candidates gave the correct figure and showed their working.

(ii) Nearly all candidates answered this correctly.

(b) Most candidates were able to explain that a continued high birth rate could lead to rapid population growth and pressure on services such as education and healthcare. Another common response was to say that it could lead to large numbers entering the job market as they got older, creating problems such as high rates of unemployment. Some candidates gave the issue of an ageing population as being a problem, but this was only acceptable if it was qualified as being in the distant future and if life expectancy also increased.

(c) Most candidates were able to answer this well, either by giving two developed or exemplified explanations, or three or four brief but valid points. A number of candidates ignored the context of HICs as stated in the question, and in some cases, where they specified explanations which clearly referred to LICs, this severely limited the effectiveness of their response.

Migration

Question 2

(a) Most candidates answered correctly, but a significant minority worked with the correct numbers (0.7 and 10) but carried out the calculation incorrectly, giving answers such as 0.7 per cent or 70 per cent.

(b) Few candidates achieved full marks because, although they identified differences in the number and proportion of refugees in Lebanon and Sweden and the relative wealth (GNI) of the two countries, they failed to go on to say why this would be a bigger problem for Lebanon.

'Lebanon has ten times as many Syrian refugees as Sweden' and *'Sweden has a higher GNI than Lebanon'* are both correct statements, but they do not link with a reason why there may be greater problems for Lebanon than Sweden.

Good responses made this link, for example:

'Sweden is wealthier than Lebanon (it has a GNI of $49,000 pp whereas Lebanon's GNI is $14,000) so it has more resources to enable it to provide for refugees, e.g. housing, health care.'

'In Lebanon, there are more refugees and they make up 17 per cent of the population, but in Sweden there are fewer refugees and they are 1 per cent. This means that the higher number and proportion of refugees puts more pressure on Lebanon than Sweden.'

(c) Most candidates were able to give some valid reasons, mainly in terms of cost and effort.

Some candidates gave explanations about migrants in general, while the question was about refugee flows, which limited the effectiveness of their answers, for example, *'They will go to countries that are close by so that they can go back from time to time to see their friends and relatives.'*

Migration/Settlement dynamics

Question 3

(a) Many candidates failed to recognise the context of the photograph being in an HIC country, where most urban areas will have surfaced roads and street lighting, so an answer such as *'The roads are made of tarmac'* or *'There are proper road markings and street signs'* do not really indicate in themselves, in an HIC such as this, a wealthy area.

Good answers achieved 3 marks by using the detail of the photograph well such as referring to the number of cars (and in some cases identifying luxury brands) and aspects that showed the area was well maintained such as the quality of the paintwork on the houses, the balconies with shrubs, the cleanliness and lack of litter, graffiti and decay.

(b) Creditworthy answers referred to lack of garages, shown by street parking, and, with the houses being close to the road, the possibility of noise from traffic and pollution from vehicle exhausts.

However, many candidates suggested problems that could not be identified from the photographs such as traffic congestion and being distant from shops.

It is important to note that when the question is clear that it relates to a resource (in this case, the area shown in Fig. 3.1), general answers that speculate about things that cannot be identified are unlikely to gain credit.

(c) This question was generally poorly answered, with many candidates gaining no more than one mark.

Only a few candidates realised it related to urban decay and counterurbanisation, and many wrote about issues not examined in this part of the syllabus such as urban heat islands and deforestation.

Section B

Population

Question 4

(a) (i) Most candidates showed knowledge of the term, but many did not cover all three elements of the definition (per 1000, per year and in a specific area, usually a country). A minority of candidates tried to define infant mortality and thus did not answer the question correctly.

(ii) Most candidates ignored the command word 'contrast' and simply stated that IMR is usually higher in LICs/MICs than in HICs and then gave detailed explanations of why this is the case when the question did not ask for explanations, and consequently many achieved only one mark.

(b) This was largely well done when candidates understood that the question was about infant mortality and specifically in MICs. Some candidates confused infant mortality rates and birth rates and the link between the two, often stating that a lower BR means a lower IMR without any explanation. Some good responses were able to make this link, as in these examples.

'If the birth rate is low, families only have one or two children and this can create a better environment for the baby as parents can give it more care.'

'Many MICs experience shifts in social attitude regarding child-rearing. Fertility rates often fall as women choose to have less children. This allows families to provide more focus and attention to individual pregnancies, since resources are less divided between many children.'

Other good answers discussed improvements in medical care, diet, sanitation and housing, and were able to support the explanations with good exemplification.

Marks were more limited when exemplification was weak ('e.g. India') or absent entirely.

(c) There was a lot of confusion, with different interpretations over what constitutes 'social conditions'.

Some candidates limited their discussion to social relationships within families and the impact of stress and mental health. Examiners accepted a broad range such as education, female status, improved diets, better housing and social care, etc.

The best answers were when candidates realised the need to focus directly on the quotation and agree or disagree, citing the importance of economic drivers, improvements in medical services, political stability and technological advancement to lead to positive change. The best candidates integrated relevant examples into their answers, but there were still too many that simply added 'e.g. Uganda' which did little to support their response.

Some only focused on IMR rather than overall mortality and repeated their answers from **4(b)**.

Migration/Settlement dynamics

Question 5

(a) Candidates with a good understanding of stepped migration were able to answer this well, but there was confusion between stepped migration and chain migration for some, which limited their responses.

(b) Where candidates were relating their points to migration between cities there were some good answers. Many candidates used examples of migration between cities for reasons such as employment, family factors or to gain a better environment, and were able to give good exemplification with some bringing in valid examples from their own experience such as *'My father got a new job so we moved from Beijing to Shanghai.'*

Unfortunately, some candidates misunderstood the question and discussed rural-urban movements or movements within an urban area (such as from inner areas to suburbs), and these responses gained no marks.

(c) This question was essentially about the impact of rural-urban migration, and those candidates who tackled it in this way produced some good answers. Most focused on rural-urban migration and discussed the growth of informal low-quality housing, but also commented on economic and social impacts. Some of the best answers also included the impact of these movements on the rural areas left behind.

Migration/Settlement dynamics

Overall, a low proportion of candidates attempted the questions from this section of the syllabus.

Question 6

(a) The range of factors described was somewhat limited, with most candidates discussing planning and land use zoning, but little beyond this. Good answers included brief accounts of specific government schemes such as developments for the Olympics, or urban renewal schemes.

(b) Stronger answers discussed the growth of out-of-town shopping developments and the decline of traditional 'high streets' and town centres and the impact of online retailing.

Some candidates failed to answer in the context of HICs as required by the question, and this limited their marks.

(c) There were few strong answers to this question. Many candidates took the view that economic development only leads to the growth of cities and tried to answer in very simple terms. The few better answers that were seen discussed the process of counter-urbanisation, which is seen in many more developed economies, but also commented on the growth of 'world cities'.

GEOGRAPHY

Paper 9696/23
Core Human Geography

Key messages

1 Candidates should appreciate that the marks indicate the number of points expected, so candidates are unlikely to get 4 marks, for example, when they give a single undeveloped statement. Likewise, a 3-mark question can gain full marks with a short, focused answer and does not need an expansive response taking up more than half a page.

2 Many candidates struggled with ***Section B*** questions, possibly due to a lack of time. Candidates need to appreciate that the last part of ***Section B*** answers are worth 25 per cent of the total mark and is often the key discriminator, being an evaluation, so they should leave sufficient time to do this well.

3 Candidates should appreciate that where a question asks for two or three aspects, as in **1(b)**, **2(b)**, **3(b)** and **5(a)(ii)**, and they give more than the required number, the best two (or three) will be taken. It is not good practice to do more than the number asked for and should not be encouraged as it wastes time.

4 Where a question refers to a particular context such as HICs, MICs or MICs/LICs in **2(b)**, **3(c)**, **4(c)**, **5(c)** and **6(b)**, candidates are expected to relate their answers to this context rather than give generic answers.

5 Candidates should avoid using vague terms such as 'living conditions' (typically in **Question 2(b)** and **4(b)**) without qualifying them with some detail or development.

6 Good examples are needed, especially in ***Section B***, but it must be appropriately applied to the question. Some candidates simply repeated everything they had memorised about an example they had studied without applying it to the question properly, which made their answers lack focus. Also, examples must be used to support a point being made. Too many candidates give an example in name only, for instance 'e.g. India', which does not add a great deal to an answer. Worse, too many candidates still use 'Africa' as an example of a country; it is not uncommon to see 'In many LICs such as Africa' in an answer. Candidates must appreciate that where questions ask for examples, they will not be able to access the higher levels of marks without any such examples.

7 Centres are encouraged to make use of the geography with which their candidates are familiar, as often the best examples are those drawn from the candidates' own home country or region rather than 'standard textbook examples' which can become dated.

Comments on specific questions

Section A

Population

Question 1

(a) Most candidates only gave a simple answer such as *'The higher the average age the lower TFR'*, but only a few used terms such as a negative or inverse relationship or used data from the table to support their answer.

(b) Most candidates gave answers about higher or lower TFR in general, rather than linking TFR and the age of the mother at the birth of their first child as, for example, in a response such as *'There is*

a lower TFR in Greece and Singapore because they are HICs which means they are more educated in the use of contraception'.

There were few precise answers such as *'The TFR in Mali will be higher than in Greece because if a woman is 18 years old when she has her first baby she has more time to have more children than a woman in Greece'.*

(c) Most candidates were able to give a number of reasons relating to availability of contraception, education and careers for women, and the higher costs of child raising in more developed economies.

Migration

Question 2

(a)(i) Nearly all candidates gave the correct answer.

(ii) Nearly all candidates gave the correct answer, but some lost a mark by not showing the simple subtraction (32 - 10) that was also required by the question.

(b) Most candidates were able to give good reasons such as low wages in the MIC and the attraction of higher wages and greater job opportunities in Australia, or the attraction of better education and health services.

Some answers were too vague to provide an adequate response, such as *'There are better living conditions'.*

(c) Examiners did not see a range of reasons, with most candidates focussing on migrants wanting *'to escape oppression and discrimination in their home country'.*

Better responses explained the role of visas, quotas and other barriers. Candidates did not have to base their answer on Australia, and some gave examples such as policies to restrict migration into the EU, or the building of a 'wall' along the USA-Mexico border.

Migration/Settlement dynamics

Question 3

(a) Nearly all candidates gained 3 marks in this question.

(b) Few candidates experienced any difficulty with this question.

(c) Some candidates did not relate their answers to LIC/MIC cities as required by the question but those that did were able to give reasons for population increase in these areas, most focussing on low-cost housing and access to jobs and services.

Section B

Population

Question 4

(a) Many candidates achieved 5 or more marks. Although not required by the question, a number of candidates used labelled diagrams to good effect. A common error was to say that the birth rate falls rapidly in Stage 2.

Some candidates gave reasons for the changes that they described, which was not asked for in the question and could not be credited.

(b) The question asked for examples; some candidates ignored this and gave generic explanations without exemplification, and this significantly limited their mark. The best responses were able to give examples to support the explanation for the BR in each stage, for instance:

'In stage 3 the BR declines because birth control is available and often promoted by governments, fewer 'insurance children' are needed because more survive into adulthood and because social developments have led to greater freedoms for women to gain higher education and careers, so they have fewer children. Countries such as Brazil and India are in this stage. In Kerala (in India) women's education together with government birth control programs have led to a rapid reduction in births.'

Stronger candidates were also able to state that countries went through Stage 1 in the past, but there are no whole countries in this stage today. For example: *'Stage 1 includes remote tribal communities where BR is high as there is little access to contraceptives and large families are part of the culture.'*

(c) Although candidates answering **Question 4** were able to gain good marks in **(a)** and **(b)**, many found this question more challenging, with many simply opting to agree that the DTM is useful. Stronger candidates gave comments such as *'However, the model is not always useful as it is very Eurocentric, based around population change in Western Europe and might not apply to all areas of the world. In addition, it is slightly outdated and does not take into account large scale international migration.'*

Migration/Settlement dynamics

Question 5

(a) (i) Provided that they understood that intra-urban migration refers to movements within an urban area, many candidates were able to answer this question effectively.

(ii) Many candidates did not read the question and answered about rural-urban migration; others did not relate increased migration within cities to a country's development.

(b) Most candidates answered this question in relation to different stages in the life cycle model and were able to give good explanations based on this. For example: *'Young workers in their 20s may choose to live in apartments near the city centre to be closer to the CBD for work and entertainment, but as people have families they may want to move to suburbs where houses are bigger and there is more open space.'*

(c) Few candidates were able to give convincing responses to this question, and many ignored the HIC element and gave generic answers with little substance. Better answers discussed the loss of commercial functions as businesses have become more flexible and the decline of city centre shops due to the growth of out-of-town retail areas and internet shopping.

Settlement dynamics

Few candidates chose to do this question.

Question 6

(a) Most responses were able to relate competition for space and cost of land (rent) to the location of different functions (commercial, retail, different types of housing and industrial).

(b) Most responses were generic and explained, in simple terms, changes such as the movement away from inner city locations to industrial areas closer to transport routes. Exemplification was generally weak, and few responses were clearly focused on LICs/MICs.

(c) Most candidates who attempted this question used their answer to **(a)** and described how the cost of land affected the location of different functions. Few mentioned other influences such as physical factors, transport routes or planning.

GEOGRAPHY

Paper 9696/31
Advanced Physical Geography Options

Key messages

This has clearly been another difficult year for candidates and teachers. Under these continuing circumstances, the response to the questions has been extremely creditable. There were many excellent responses, especially to **Questions 5** and **9**. The resource-based questions caused few problems apart from the resource for **Question 4** and occasionally for **Question 7**. However, there is a tendency to see in the resources what one expects to see. This was especially the case with the photograph for **Question 10(a)**. There are several features and landforms that one might expect to see in a photograph of the desert environment, whether they are actually shown on the photograph or not. Thus, many candidates identified pediments, zeugen and alluvial fans even though they were not present in the photograph.

General comments

The Tropical environments option was again the least popular section in the paper. **Questions 2** and **3**, the essay questions for this option, caused a few problems. The essay type questions all demanded an evaluation or a reasoned argument based on an assessment. Quite often the factors or issues were discussed in some detail but the assessment or evaluation element was very rudimentary, if present at all. It is very difficult to obtain a mark above Level 2 without some form of assessment or evaluation.

Several questions had a management component to them. It is very difficult to assess the effectiveness of management strategies without reference to specific examples where management has been attempted. Without specific examples, evaluation becomes very generic and the evaluation will inevitably be very speculative, even if potentially accurate. This is an important consideration if answers are to achieve a mark above the top of Level 2.

Comments on specific questions

Tropical environments

Question 1

(a) Most candidates were able to obtain some marks in answering this question. The better answers recognised that the pattern to the south of the Equator was slightly different to that north of the Equator and that there were some anomalies in the east around the Equator and on Madagascar.

(b) The two main reasons, the angle of the sun and the movement of the Intertropical Convergence Zone north and south of the Equator, were the favoured explanations, though often lacking in detail. Few candidates identified the increasing length of the dry season further from the Equator when explaining the distribution of the dry and bush savanna.

Question 2

This was clearly a question about the nutrient cycle of humid tropical (rainforest) ecosystems. However, many candidates identified it as a question about weathering and wrote at great length about all the types of weathering they could think of, whether relevant or not, such as freeze-thaw weathering and unloading. Some candidates started their answers with a diagram of a typical nutrient cycle and then completely ignored its components. Many answers noted the factors that might be significant in the nutrient cycle, such as climate and vegetation, without assessing their relative roles in the cycle. In general, assessment was lacking in the majority of answers.

Question 3

It was clear that many candidates would have preferred a question on granite landforms. Thus, some candidates tried to argue that tropical karst landforms were the result of hydrolysis and the exhumation of an etchplain. Even more surprisingly, some answers failed to mention limestone at all and the role of joints and other rock structures, and carbonation was often ignored. Most candidates recognised that cone, cockpit and tower karst were the tropical karst landforms, but were often unable to distinguish between them or to explain their formation. In contrast, however, there were a few good answers to the question, demonstrating that the landforms had been studied in depth. Most were aware that cockpit karst was typical of Jamaica and that tower karst occurred in Southeast Asia.

Coastal environments

Question 4

(a) This resource caused few problems and many candidates obtained good marks. The bending of wave approach was the obvious point noted by all as well as the divergence in the bays. Some candidates slightly misinterpreted the wave approach arrows to suggest that waves did not reach the beach in the centre of the bay.

(b) The majority of candidates recognised that the resource was indicating wave refraction. However, surprisingly few were able to explain the process accurately with regard to the decreasing water depth off the headlands and thus friction slowing and changing the nature of the waves. Some candidates misinterpreted the sea bed contours, suggesting that the water was deeper at the headlands and shallower in the centre of the bay. Most marks were obtained by discussion of the effect of the wave pattern on the distribution of energy.

Question 5

This was a very popular question with some very detailed answers. The better answers prefaced their analysis with consideration of the factors needed for healthy coral growth and used this information to underpin the success or otherwise of management strategies. However, as noted in the general comments, many answers were purely generic with no specific example on which to base evaluation. The more detailed answers based their evaluation on management strategies in the Great Barrier Reef of Australia, Fiji, Sri Lanka or the Maldives. These examples were often very detailed and informative.

Question 6

This was the least popular question in this option and the response was generally weak. Some candidates were unable to distinguish sub-aerial processes from marine processes. Candidates who did understand the respective processes simply described how the processes operated without explaining how they were involved in the formation of erosional landforms or evaluating their relative contribution. Very rarely were other factors, such as rock structure and lithology or human activity, discussed. There were some good, clear and accurate answers with sound evaluation, but these were in the minority.

Hazardous environments

Question 7

(a) There was a good response to this question with most candidates attempting to provide a synthesis of the global distribution of the volcanoes. Although the tectonic plate boundaries were not shown, some candidates explained the distribution in terms of those plate boundaries, which was not what the question required. This is another example of candidates seeing more in the resource than the question required.

(b) The response to this question was generally good with most candidates aware that volcanoes are not associated with all plate boundaries. Conservative plate boundaries were identified by most as not being associated with volcanoes. Lack of volcanoes at collision plate boundaries was mentioned by some but largely ignored by the majority. Some candidates were unaware that volcanoes are often associated with divergence plate boundaries, even though they may have described volcanoes on the mid-Atlantic Ridge in **(a)**. Most were aware that the production of magma, usually in a chamber, often associated with subduction, was a major requirement for

volcanoes to form. The explanation most often offered as a reason for lack of volcanoes at some plate boundaries was because of a lack of space for magma to reach the surface.

Question 8

This was the least popular question in this option. There were so few answers that it is difficult to produce a synthesis of the responses. Some candidates spent too much time explaining how tornadoes form and too little on the hazards. Also, some candidates considered that the only hazard from tornadoes was high wind. Such a view made evaluation of the question difficult. However, there were a few excellent answers with a sustained evaluation of the main hazards associated with tornadoes.

Question 9

This was by far the most popular question in the option and received several excellent responses. The best answers were those that used detailed specific examples on which to base their assessment and that emphasised the difference between primary and secondary hazards. The most prominent examples were the Haiti, Japan and Christchurch earthquakes. In general, the detail provided was substantial. There was the occasional tendency to simply list various preparation strategies without explaining their significance or effectiveness. This was particularly the case when discussing prediction techniques. Seismographs, radon gas and changes in magnetism were simply stated without any indication as to how they might be used to predict earthquakes and whether they were successful.

Hot arid and semi-arid environments

Question 10

(a) As noted in the key messages, some candidates identified features and landforms in the resource that were not present. The question asked for a description of the features and not just identification. Thus, simply stating inselberg as a feature without a description was not sufficient. A few candidates failed to produce a diagram and some produced a diagram with no description. This restricted the marks that could be awarded and is an indication of an incomplete interpretation of the question.

(b) The emphasis here was on water processes. However, many candidates wrote about wind processes. There was a tendency to describe all the water processes that could occur in arid environments whether they were relevant or not to the features in the photograph. Also, many answers simply described the processes and failed to apply the operation of those processes to the features in the photograph.

Question 11

This was a question that required the use of specific semi-arid areas to evaluate the factors that might lead or had led to desertification. Most candidates were aware of the main causes of desertification. Assessing the relative importance of factors is difficult if the answer is purely generic. It is impossible to compare the importance of over-cultivation or deforestation without a specific example on which to base the evaluation. The best answers were able to explain that overpopulation was a key issue in one area whilst deforestation was more important in another area with the evidence to substantiate the assessment. Overriding all was the possibility that climate change was affecting most areas.

Question 12

In general, this question was answered quite satisfactorily. Most answers discussed the four main factors: pressure systems (high pressure descending air associated with the Hadley Cell), continentality, cold ocean currents and the rain shadow effect. The better candidates were able to justify their assessment with reference to specific arid areas where one or more of the causative factors were prevalent. However, answers with no reference to specific arid areas were quite frequent. Also, a very small number of candidates confused the cause of aridity with desertification. It was possible to argue for human influence on aridity but it required a more sophisticated argument than simply referring to overcultivation, etc.

GEOGRAPHY

Paper 9696/32
Advanced Physical Geography Options

Key messages

This has clearly been another difficult year for candidates and teachers. Under these continuing circumstances, the response to the questions has been extremely creditable. There were many excellent responses, especially to **Questions 6** and **8**. The resource-based questions caused a few problems and candidates should be encouraged to spend a little more time studying the resource carefully and trying to identify any patterns or trends indicated. However, there is a tendency to see in the resources what one expects to see. This was especially the case with the photograph for **Question 4(a)**.

General comments

The Hot arid and semi-arid environments option was again the least popular section in the paper. **Questions 11** and **12**, the essay questions for this option, caused a few problems. The essay type questions all demanded an evaluation or a reasoned argument based on an assessment. Quite often the factors or issues were discussed in some detail but the assessment or evaluation element was very rudimentary, if present at all. It is very difficult to obtain a mark above Level 2 without some form of assessment or evaluation.

Several questions had a management component to them. It is very difficult to assess the effectiveness of management strategies without reference to specific examples where management has been attempted. Without specific examples, evaluation becomes very generic and the evaluation will inevitably be very speculative, even if potentially accurate. This is an important consideration if answers are to achieve a mark above Level 2.

Comments on specific questions

Tropical environments

Question 1

(a) Most candidates were able to obtain some marks in answering this question. The better answers recognised that the pattern showed changes throughout the 24-hour period such as the gentle decline in temperature during the night, a steeper increase during the morning and periods of stability. Some of the more general points such as the small diurnal temperature range were surprisingly missed by many candidates.

(b) The two main reasons, the angle of the sun and insolation leading to convectional rainfall, were the favoured explanations, though often lacking in detail. Greater accuracy was needed in linking atmospheric processes to timings throughout the day. Where this was achieved, Level 3 could be accessed.

Question 2

This was clearly a question about the various factors affecting savanna ecosystems leading to plagioclimax rather than climatic climax vegetation. Too few responses included detailed and accurate information on the characteristics of the specific ecosystem, which could have formed a backdrop for the assessment. The more descriptive answers could access Level 2 easily, but it required a larger range of human activities and other factors such as climate, weathering, geology and relief for candidates to achieve Level 3 and above.

Question 3

It was clear that candidates preferred this essay question within the option. The eventual quality of the response was largely based on the detail and accuracy of the chosen case study which could be used to illustrate and evaluate the threats and solutions. The threats were often effectively described but the better answers linked the solution to the specific threat being discussed. Encouragingly, many candidates considered sustainability in the evaluation and how it may reduce the long-term threats within the chosen ecosystem.

Coastal environments

Question 4

(a) This resource showed a fairly complex coastal landscape with a large range of physical features. Once these had been accurately recognised, they needed to be described. Not all candidates included the description. A small minority failed to include an appropriate labelled diagram. Some consideration needed to be given as to how the diagram aided the description.

(b) The majority of candidates recognised that the resource was indicating different rock types and linked this to differential erosion. However, fewer were able to explain the effect of the rock structure shown in the photograph. The focus was on the photograph and some candidates generalised on the possible evolution of a headland, including standard textbook diagrams. It was encouraging to note that the best answers included ideas on how the geology had influenced some deposition and sub-aerial processes.

Question 5

This was the least popular question in this option and responses were generally weak. The better answers prefaced their analysis with consideration of the factors needed for healthy coral growth and used this information to underpin the different types of coral reef. Many candidates identified them as fringing, barrier, and atoll reefs, although most simply described them rather than explaining their differences. A good number of responses referred to theories of reef formation proposed by Darwin, Murray, and Daly.

Question 6

This was the most popular question in this option and the responses were generally encouraging. Most candidates were able to provide a detailed and accurate explanation of longshore drift to underpin the assessment, although the significance of the prevailing wind and wave direction was under-emphasised. A consideration of spits, tombolos and beaches allowed access to the top of Level 2. The better responses assessed a wider range of depositional landforms such as coastal dunes and saltmarshes along with other relevant processes. It was pleasing to note the increasing use of specific examples to illustrate and elaborate on ideas being expressed.

Hazardous environments

Question 7

(a) There was a good response to this question with most candidates attempting to provide a synthesis of the global distribution of the earthquakes. Although the tectonic plate boundaries were not shown, some candidates explained the distribution in terms of those plate boundaries, which was not what the question required. This is another example of candidates seeing more in the resource than the question required. Many candidates omitted some of the more general points regarding the distribution such as the numerous clusters which were widely distributed and linear in nature.

(b) The response to this question gave candidates the opportunity to show their understanding of different types of tectonic plate boundary and especially the process of subduction. Many responses made reference to the Benioff zone as an indication of deep focus earthquakes rather than a range of depths. However, it was largely recognised that shallow focus earthquakes were a characteristic of constructive and conservative margins. Some confusion emerged when collision zones were considered. Perhaps fold mountain formation at these boundaries misled some into suggesting that these were the deepest.

Question 8

This was the most popular question in the option. Candidates recognised that mass movements were hazards, but some responses failed to consider what the hazards entailed for the areas where they occur. The better answers considered a range of movements including landslides, mudflows, lahars, rockfalls and avalanches and how a particular strategy was used for a specific movement. A more generic approach was less effective and did not get above Level 2. The effectiveness of a strategy depended on many natural and human considerations and an assessment of specific examples allowed access to the higher levels.

Question 9

This question produced a wide range of responses. Some candidates confused tornadoes as large-scale atmospheric disturbances and others simply agreed with the quotation to produce a simplistic assessment. Pleasingly, a significant proportion of answers included a diagram which outlined significant factors in the formation of the disturbance. Those which were annotated demonstrated a clear understanding and knowledge of the formative processes. The quality of the response was often dependent on the range of factors considered and how the disturbance developed over the ocean and especially when it made landfall.

Hot arid and semi-arid environments

Question 10

(a) As noted earlier, a very small proportion answered questions in this option. Some candidates adopted the wrong technique in responding to the climate data by simply transferring it into text. The better responses described seasonal variations and selected some data to illustrate the hotter, damper summers and the less hot, drier winters. In addition, the range of temperatures and total precipitation were significant characteristics.

(b) This proved to be a demanding question but once the link between latitude, the Hadley cell and the ITCZ was established, higher levels could be accessed, especially if related to specific times of the year. The latitude of Monterrey was clearly given in the data and the very best answers demonstrated its significance.

Question 11

A very small minority of candidates chose this question but there was an outstanding response which focused on solonetz and solonchak soils. The process of salinization in hot arid and semi-arid environments was explained with reference to upward capillary water movement and near-surface evaporation. Other soil-forming processes were assessed including leaching, decomposition of organic matter, weathering and human activities including irrigation.

Question 12

In general, this question was answered quite satisfactorily. Most recognised the significance of past pluvial periods giving rise to fluvial processes and landforms. This recognition formed the basis of a strong answer which could be developed by evaluating more recent aeolian processes and landforms. The range of features and detail included in their formation allowed the higher levels to be achieved. Despite the significance of past pluvial periods, the stronger responses recognised the periodic influence of fluvial processes in more recent times.

GEOGRAPHY

Paper 9696/33
Advanced Physical Geography Options

Key messages

This has clearly been another difficult year for candidates and teachers. Under these continuing circumstances, the response to the questions has been extremely creditable. There were many excellent responses, especially to **Questions 6** and **8**. The resource-based questions caused a few problems and candidates should be encouraged to spend a little more time studying the resource carefully and trying to identify any patterns or trends indicated. However, there is a tendency to see in the resources what one expects to see. This was especially the case with the photograph for **Question 4(a)**.

General comments

The Hot arid and semi-arid environments option was again the least popular section in the paper. **Questions 11** and **12**, the essay questions for this option, caused a few problems. The essay type questions all demanded an evaluation or a reasoned argument based on an assessment. Quite often the factors or issues were discussed in some detail but the assessment or evaluation element was very rudimentary, if present at all. It is very difficult to obtain a mark above Level 2 without some form of assessment or evaluation.

Several questions had a management component to them. It is very difficult to assess the effectiveness of management strategies without reference to specific examples where management has been attempted. Without specific examples, evaluation becomes very generic and the evaluation will inevitably be very speculative, even if potentially accurate. This is an important consideration if answers are to achieve a mark above Level 2.

Comments on specific questions

Tropical environments

Question 1

(a) Most candidates were able to obtain some marks in answering this question. The better answers recognised that the pattern showed changes throughout the 24-hour period such as the gentle decline in temperature during the night, a steeper increase during the morning and periods of stability. Some of the more general points such as the small diurnal temperature range were surprisingly missed by many candidates.

(b) The two main reasons, the angle of the sun and insolation leading to convectional rainfall, were the favoured explanations, though often lacking in detail. Greater accuracy was needed in linking atmospheric processes to timings throughout the day. Where this was achieved, Level 3 could be accessed.

Question 2

This was clearly a question about the various factors affecting savanna ecosystems leading to plagioclimax rather than climatic climax vegetation. Too few responses included detailed and accurate information on the characteristics of the specific ecosystem, which could have formed a backdrop for the assessment. The more descriptive answers could access Level 2 easily, but it required a larger range of human activities and other factors such as climate, weathering, geology and relief for candidates to achieve Level 3 and above.

Question 3

It was clear that candidates preferred this essay question within the option. The eventual quality of the response was largely based on the detail and accuracy of the chosen case study which could be used to illustrate and evaluate the threats and solutions. The threats were often effectively described but the better answers linked the solution to the specific threat being discussed. Encouragingly, many candidates considered sustainability in the evaluation and how it may reduce the long-term threats within the chosen ecosystem.

Coastal environments

Question 4

(a) This resource showed a fairly complex coastal landscape with a large range of physical features. Once these had been accurately recognised, they needed to be described. Not all candidates included the description. A small minority failed to include an appropriate labelled diagram. Some consideration needed to be given as to how the diagram aided the description.

(b) The majority of candidates recognised that the resource was indicating different rock types and linked this to differential erosion. However, fewer were able to explain the effect of the rock structure shown in the photograph. The focus was on the photograph and some candidates generalised on the possible evolution of a headland, including standard textbook diagrams. It was encouraging to note that the best answers included ideas on how the geology had influenced some deposition and sub-aerial processes.

Question 5

This was the least popular question in this option and responses were generally weak. The better answers prefaced their analysis with consideration of the factors needed for healthy coral growth and used this information to underpin the different types of coral reef. Many candidates identified them as fringing, barrier, and atoll reefs, although most simply described them rather than explaining their differences. A good number of responses referred to theories of reef formation proposed by Darwin, Murray, and Daly.

Question 6

This was the most popular question in this option and the responses were generally encouraging. Most candidates were able to provide a detailed and accurate explanation of longshore drift to underpin the assessment, although the significance of the prevailing wind and wave direction was under-emphasised. A consideration of spits, tombolos and beaches allowed access to the top of Level 2. The better responses assessed a wider range of depositional landforms such as coastal dunes and saltmarshes along with other relevant processes. It was pleasing to note the increasing use of specific examples to illustrate and elaborate on ideas being expressed.

Hazardous environments

Question 7

(a) There was a good response to this question with most candidates attempting to provide a synthesis of the global distribution of the earthquakes. Although the tectonic plate boundaries were not shown, some candidates explained the distribution in terms of those plate boundaries, which was not what the question required. This is another example of candidates seeing more in the resource than the question required. Many candidates omitted some of the more general points regarding the distribution such as the numerous clusters which were widely distributed and linear in nature.

(b) The response to this question gave candidates the opportunity to show their understanding of different types of tectonic plate boundary and especially the process of subduction. Many responses made reference to the Benioff zone as an indication of deep focus earthquakes rather than a range of depths. However, it was largely recognised that shallow focus earthquakes were a characteristic of constructive and conservative margins. Some confusion emerged when collision zones were considered. Perhaps fold mountain formation at these boundaries misled some into suggesting that these were the deepest.

Question 8

This was the most popular question in the option. Candidates recognised that mass movements were hazards, but some responses failed to consider what the hazards entailed for the areas where they occur. The better answers considered a range of movements including landslides, mudflows, lahars, rockfalls and avalanches and how a particular strategy was used for a specific movement. A more generic approach was less effective and did not get above Level 2. The effectiveness of a strategy depended on many natural and human considerations and an assessment of specific examples allowed access to the higher levels.

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This question produced a wide range of responses. Some candidates confused tornadoes as large-scale atmospheric disturbances and others simply agreed with the quotation to produce a simplistic assessment. Pleasingly, a significant proportion of answers included a diagram which outlined significant factors in the formation of the disturbance. Those which were annotated demonstrated a clear understanding and knowledge of the formative processes. The quality of the response was often dependent on the range of factors considered and how the disturbance developed over the ocean and especially when it made landfall.

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GEOGRAPHY

Paper 9696/41
Advanced Human Geography Options

Key messages

1 For essay questions, deconstruct the question and plan a response based upon the entirety of the question.
2 For **part (b)** of resource-based questions, candidates need to note the number of explanatory factors which are required and compose a response with this in mind. Sometimes it is difficult to see where a candidate is explaining a different factor.

General comments

Centres and candidates should be congratulated for their efforts in overcoming the difficulties presented by the global pandemic and sitting this examination series. Almost every candidate was able to complete the required number of questions. They are also helping Examiners with their largely exemplary handwriting which allows the candidates to clearly communicate their ideas and allows the flow of information and ideas to be read by the Examiner. Responses are generally of a suitable length to enable candidates to maintain an argument and to adequately illustrate it with place support and conceptual ideas. Some candidates write essays which are descriptive and explanatory in approach (Level 2) in which each paragraph is at the same level, with little evaluation regarding the question.

Centres should check that the case studies used fulfil the requirements of the syllabus. Candidates appear to have difficulty remembering details of case studies where an historical approach is used. Some candidates display a sound and detailed knowledge of the examples and case studies, and this is frequently aided by the choice of local, regional, or national examples which are familiar to the candidate. This gives an authenticity which conveys a sense of place.

Comments on specific questions

Production, location and change

Question 1

(a) This question was not well done for two main reasons: the importance to the question of area X and knowledge of what is meant by agricultural land use and practices. Most candidates recognised that the physical environment outside of area X might be challenging in terms of steep, bare slopes, with signs of aridity, but missed the point in the title of the photograph (Fig. 1.1) that the valley is irrigated and the significance of the predominant green colour to area X or noticed the difference between the landscape in area X (relatively flat with signs of fluvial activity). Candidates who recognised that the valley was irrigated could have used this as an example of an agricultural practice which assists the growth of crops and/or pasture (land uses), whilst they might have referred to the slopes and river as ways of transporting material which accumulates in the flatter lower area X and is essential as soil for crop growth. Many candidates described things that cannot be done in arid environments rather than what is done and why, and some referred to issues unrelated to the physical environment such as transport or labour.

(b) In general, responses were better than those to **(a)**, with the most frequent examples of environmental impacts being related to the use of chemicals, overcultivation or overstocking and use of machinery, but often only simple points which lacked development or exemplification.

Question 2

Responses tended to be descriptive accounts of farming and influences on agriculture in a country but lacked focus on agricultural change and the difficulties of managing the change(s). The evaluative element required candidates to assess the extent to which the difficulties of managing agricultural change are caused by economic factors, so economic factors need to be identified as such and described. Sometimes, in descriptive or even narrative accounts, candidates did not clearly identify or allocate a class to the factors described.

The case study most commonly seen was based on Jamaican agriculture, so it is reasonable, in this report, to show how elements from this case study could be used in this question. For example, the removal of EU preferential treatment for Jamaican banana exports is a political factor, since the decision is made by a supra-national body but has economic impacts and presents difficulties for both individual producers and for national government. Most candidates who used this example did not allocate a specific factor to it and missed the opportunity to discuss how one factor can lead to other factors. The removal leads to increased international competition and lower profits (economic). Hence, at an individual or farm scale, there is a choice over whether to continue to grow bananas or indeed whether to continue in agriculture (management of agricultural change). At a national scale, it leads to the question of what can be done to support banana production or to enable farmers to move to other crops.

Environmental factors were commonly seen in case studies often related to climate change and/or hazards from tropical storms. For instance, heavy rainfall might lead to difficulties such as damage to crops or loss of soil, which in the former case might lead to short term difficulties, e.g. loss of revenue, but could be managed by farmers planting a second or different crop or by government offering support, and in the latter case give long term difficulties which are hard to overcome. Better responses might be able to develop links between factors, since in the case of climatic hazards the farm or government may not have the economic resources to manage the change.

In short, candidates need to plan how they are going to respond to the question and teachers should make sure that case studies cover all aspects of the unit and that candidates are coached to move away from descriptive accounts which repeat knowledge but do not address the question. It would be better to have a small number of points which are well broken down than a lengthy descriptive account which leaves much for the Examiner to interpret in terms of the demands of the question.

Question 3

Responses to this question were more varied. Many responses were descriptions with some explanation of factors affecting the location of industry, but some were more insightful than others. Simple responses commented on proximity to materials to reduce costs; more developed responses commented on how far the statement was true for different types of industry, making comparisons from examples such as: heavy/bulky or light, weight gaining/losing, high value: bulk or low value to bulk, processing or component-based industries, perishable goods.

Development of the response might also have considered how the importance of materials is changing. It might have considered the role of technology in influencing the amount of materials needed through refinement or substitution with alternatives, or how transport advances have made it cheaper to move materials, or how the nature of materials changes in the production cycle. Many candidates attempted to introduce other factors affecting the location of manufacturing industry such as: land, labour, capital, markets, technology, economies of scale, inertia, transport, government policy, but these were frequently not well integrated into the question. It would be better to have a detailed analysis of the factors influencing the location of one type of manufacturing industry and to use this to determine the relative importance of materials and other factors rather than simply describe several different industries, where a single factor was seen as the locating factor.

Environmental management

Question 4

(a) Most candidates were able to describe differences between the two years such as the higher and earlier peak in 2018 (February/March), with the lowest production in the same month (August), and more fluctuations between January and June in 2017. Weaker responses read monthly figures off the graph for individual months or described one graph then the other, with no comparison. Some

candidates did not notice that the hydrological year for this location begins in October, which was seen through confusion over April and August on the X-axis.

(b) Most scored quite well here, achieving Level 2, and were able to give reasonable answers related to seasonal precipitation variations and some reference to evaporation losses in summer periods or freezing of water in winter. Better responses developed the answer to consider factors which influence seasonal demand and supported these or other points with examples of climate zones/types or specific projects or pointed out that, in many cases, large reservoirs will buffer seasonal variations in river flow such that demand might be the main factor causing changes in output through the year.

Question 5

An important discriminatory factor in this question was the ability to move away from describing and commenting on the energy mix of a country (whether this is the less relevant overall mix, or the more relevant mix used for electrical energy production) to considering other aspects of the overall electrical energy strategy. Other aspects of the overall energy strategy might include comment on how reducing environmental impacts could come about through management of supply and demand, efficiency in the use of electrical energy or through conservation and education. Most candidates were able to broadly discuss issues related to non-renewables and switching to renewables. In the latter case, candidates displayed knowledge about the major non-renewable and major renewable sources but were less knowledgeable about other types of energy used.

China was the most popular country chosen to exemplify their response, with Norway also frequently used. There were some quite dated reviews using France as an example. This question lends itself to a consideration of changes in policy over a reasonable period of time, but centres should note that where candidates attempt to use a lengthier time period, they tend to mix up aspects of the chronology. Some candidates attempted to use their case study of one named located scheme, with success determined by how far they could extend this to consider the wider aspects of the overall energy strategy, but many with this starting point were less successful.

Question 6

Better responses were able to discuss the role of economic factors in causing water pollution with clear reference to the context of LICs/MICs. Discussion of the role involves a consideration of whether differing economic factors are more important than others and whether this varies with different causes or in differing situations. As an example, a simple cause of water pollution, such as industry using direct discharge into water sources for waste disposal because of the economic factor of cost, might have been developed by considering a range of economic factors influencing ‘cost’ such as the cost of technology or materials used to clean used water, profit maximisation, drive for productivity.

Further development may have been by considering the role of other factors such as political, e.g. lack of regulation or lack of enforcement and corruption along with a conclusion as to which factor(s) are more important. Better responses were also able to address the LIC/MIC context by commenting on how the drive for economic development may lead to increasing sources of pollution in industry or agriculture, more resource exploitation and increased demand for water. Some candidates discussed LIC and MIC as two distinct categories. This is acceptable as an approach but is not a requirement. Weaker responses simply described a range of sources or causes of water pollution with, at best, simple comment on the role played by economic or other factors with little argument about the role of economic or other factors.

Global interdependence

Question 7

(a) Most candidates noted that the countries nearest to Australia received the most aid and that this declined with distance. Fig. 7.2 was used well by some candidates but not by all. Some candidates identified anomalies from the general pattern by simply stating that a named country, e.g. Thailand, is an anomaly, but this is not creditable unless candidates explain the anomaly. In this case, Thailand has a lower level of aid than the countries around it.

(b) Tied aid was well understood by most and there were many reasonable answers to this question. The most common explanations focused on donor countries having more control over aid projects. They generate benefits for the donor economy such as: increased employment or revenue;

expansion in export markets; increase in import sources (resources in the main). Less frequently, candidates noted that tied aid reduces the risk of default by the receiving country or satisfies political demands domestically to justify donation of aid. There were some sound examples used such as Chinese aid to African countries (with specific examples to illustrate) or the tied aid deal between the UK and Malaysia centred on the Pergau dam project.

Question 8

Success in answering this question was determined by the ability to deconstruct the question and to consider all parts of the question. Most candidates did not address what the problems of the international debt crisis are and displayed instead knowledge of the causes. Problems which were seen included: interest repayment issues, odious debt, currency issues, reduction of funds for improvement of the domestic economy and/or services. Less frequently seen were problems related to default on loans, creditworthiness, debt service ratio, inflation, and civil strife.

Other candidates turned the question to a discussion of trade versus aid, which is not the focus of the question. Most made the point about trade increasing GDP, so making it easier for countries to pay off debt. Some developed this to consider the importance of earning foreign currency. Other points about positive aspects of trade included: exploitation and utilisation of natural resources, access to resources and inputs, economic growth and development, increased personal and corporate wealth, specialisation, spread of technology, development of new industries, market growth, removal of trade barriers and improved status and relations globally.

Candidates were more able to comment on negative aspects or problems of trade for exporting countries such as export and primary product dependency, competition, global economic issues, e.g. inflation and recession. Some very good answers were seen with sound background knowledge and well argued points about trading blocs, Fairtrade initiatives, HIPCs and the role of WTO in recent trade rounds.

Question 9

This was a popular question. There were some encouraging responses with stronger answers describing some of the trends in international tourism and considering the extent to which these are caused by political factors. The most common trends described were the general increase in international tourism and the recent decline related to the global pandemic, along with changes in types of tourism offered such as ecotourism and the development of new destinations. Many candidates take a simplistic approach and consider one factor at a time, starting with a review of different political factors, then others and miss the opportunity to discuss the complexity of factors which are responsible for a trend or change in trend.

An example might be the role of internet and social media in the booking and marketing process, which is both a trend and a causal factor. Political factors most frequently seen included: restrictions on travel into or out of countries; war, internal conflict, terrorism; government investment in the tourist industry and government backing to fund bids for major international events. Some development of these points was seen such as use of visas to encourage or control numbers or government investment in education and skills training. The question was open for discussion of economic and social factors as well as political, since the question is ‘To what extent do you agree...?’

Economic transition

Question 10

(a) Candidates who did well understood the command word ‘contrast’, which the syllabus glossary refers to as ‘describe differences’, and noted that they had to contrast the level of economic development of the three MICs. A straightforward way to do this was to suggest a rank order of development, with Thailand as the most developed because it has the highest tertiary percentage but the lowest in agriculture, with Cambodia as the least developed since it has the highest percentage from agriculture but the lowest from tertiary. Further comment on the position of Vietnam and some comparative evidence would achieve full marks. Candidates who only described the sectoral data for the three countries with no contrast of level of development were unsuccessful.

(b) This question was not particularly well done, with candidates describing various measures and not explaining the advantages. The key to this question is to have knowledge of how to measure the strengths and weaknesses of economic indices of inequality between countries. The advantages

could refer to using economic indices themselves and/or why they are an advantage over other indices such as social or composite indices. Valid points about economic indices included reference to objective numeric data, which is relatively easy to collect and calculate, gives a number for easy comparison of countries, has a long-term history, or reference to links about how economic indices measure wealth, which can be used to improve the quality of life and/or that quality of life is made up of a variety of factors, some of which are economic.

Question 11

Most candidates had a case study of a TNC and knowledge of the advantages and disadvantages of TNC investment in other countries, but they needed to apply this to the question set. The question required deconstruction and a plan to cover all aspects of the question: FDI and its role in the globalisation of economic activity. Less successful responses focused on TNCs, so although they gained some credit, they did not consider the wider implications. Others only developed the globalisation of economic activity through consideration of aspects such as transport and communication improvements rather than economic activity.

Successful responses were able to balance the response by consideration of how FDI leads to the globalisation of economic activity with comment seen more frequently on increased trade and economic activity within and between countries, increased availability of goods and market growth, development of economies and, less frequently, global shift in stages of production, integration of economies and spread of investment flows to LICs and MICs leading to some breakdown of the old order of the world economy.

Another way to develop a response was to consider negative aspects of FDI on globalisation of economic activity such as: impact on local producers through increased competition, strain on resources, loss of control over economy, remittance of wages from immigrant workers of the source country of the FDI and issues related to skills required by source country of recipient workers. Some candidates looked at factors other than FDI but where the command is to 'assess the role', they should be aware that other factors may be relevant but should not dominate the response.

Question 12

Candidates who answered this question recognised the demand within the question to consider one country and offered evidence from just one country. The key to any such question on regional disparities is to have knowledge about at least two regions. Teachers and/or candidates, when selecting a country to be used as a case study, should consider how many regions are needed to create a sense of place about country, and how far these represent the types and nature of the disparities present. It would be reasonable for a candidate to suggest that, while there may be many regions within a country, the disparities (or not) can be illustrated by considering a selection and therefore should have some detailed knowledge about at least two regions.

Frequently candidates name only the region but have little other place specific knowledge about each region. In this question, candidates were asked how far they agreed that the concept of core–periphery explains the disparities within the chosen country. Many have reasonable knowledge about the concept of core–periphery, including features and processes such as initial advantages, cumulative causation, and multiplier effect, but some are less secure about spread effects and backwash effects, and none were able to discuss negative externalities within core regions. Some candidates took a rural/urban approach but were less successful as they did not link this to any named regions which might represent these disparities.

GEOGRAPHY

Paper 9696/42
Advanced Human Geography Options

Key messages

Candidates are encouraged to be evaluative throughout the essay and not leave it until the conclusion. There were a pleasing number of Level 3 and Level 4 essays this series as candidates show continued improvements in evaluation. Some demonstrated in their introduction what conclusions they were going to work towards, and others finished each paragraph with a mini conclusion. This is a far more effective writing style than point, evidence, explain chains which are simplistic at this level if not developed further. Candidates who plan their essays usually do better.

The use of examples in **part (b)** of **Questions 1**, **4**, **7** and **10** needs to be encouraged as this can lift an answer which demonstrates secure knowledge to Level 3. Examples can be strategies and techniques and do not always have to be in named locations, although this is the most obvious way to show context.

General comments

There did not appear to be any change between June 2019 (the last summer series for this paper due to the global pandemic) and June 2021, with many candidates able to use recent events in their answers, particularly in relation to Global interdependence and flows of people, labour, capital, etc. around the world. An understanding of current affairs is not required but can be a useful tool for candidates to demonstrate the ability to evaluate and question the common narrative. It is pleasing to see candidates consider the future impacts that may be felt around the world in the wake of the global pandemic.

Comments on specific questions

Production, location and change

Question 1

(a) This question required candidates to describe the main characteristics of the bar graph. They should look for trends and identify anomalies, and in this type of question it is usually appropriate to describe the largest/greatest data set and the lowest/least as main characteristics. Most candidates identified that the largest percentage of farms were of the smallest size and could gain a development mark for each description. Fewer described the overall trend. Listing/stating each bar separately is not acceptable.

(b) This question was not well answered as explanations could have been applied to a farm of any size, not just small farms. However, credit was given for developed explanations relevant to small farms. There was a noted lack of awareness of techniques used by farmers who specifically have small amounts of land available to them.

Question 2

Very few candidates chose to answer this question, so it is difficult to comment on common mistakes or positives. There was a good balance between problems and benefits in responses and the use of examples to exemplify extension of cultivation. It was clear that a small number did not understand the idea of 'extension' in this context, and this may also be the reason that few candidates chose the question.

Question 3

This was a popular question in this topic, and in general candidates approached it with a good level of understanding about the role of labour. Stronger responses considered how the importance of labour has changed over time and considered how labour may be more important to countries at different levels of development. Content could be like **Question 11**, about TNCs choosing where to locate FDI, as cheap labour is a consideration in their choice. Therefore, candidates who chose both these essays could have found themselves writing similar content in both. However, better essays got past 'cheap labour' and developed other ideas about labour. The focus of the essay was expected to be on the role of labour. Therefore, it is not acceptable to equally evaluate the various factors listed in the syllabus against each other (labour, capital, land, etc.) with little mention of the role of labour. Other factors needed to be judged against this focus.

Environmental Management

Question 4

(a) The command words here 'suggest reasons why' is more than just stating reasons. Listing is unacceptable. Each reason suggested should be developed beyond just stating it as a point of interest. For example, 'The area has few tall trees' does not give enough detail to gain a mark. Instead, the expectation is this: 'The area has few tall trees which means that the wind is not obstructed.' Candidates should be instructed not to assume that the Examiner will understand their meaning and should develop each reason with a reasonable amount of explanation. Each reason needs to be linked back to wind turbines. Other candidates suggested only two reasons and spent too long explaining them, going into much detail which showed understanding but which cannot be credited beyond 2 marks.

(b) Many candidates suggested three negative impacts (see comment on 'suggest' in **4(a)** above) but the command word here is to explain. This requires developed explanation showing strong conceptual understanding and, ideally, the use of examples. Teachers should train candidates to produce three paragraphs of explanation, each one distinct from the other. It is possible to get the highest level with at least one well developed explanation, but three undeveloped explanations can remain in Level 1.

Question 5

This was a very popular question and there were some excellent responses. Those that did not do so well showed a lack of understanding of energy security. Instead, they took the general approach of assessing whether renewables were the best way to increase energy supply and/or meet demand. Other essays missed the LICs/MICs context completely. China proved to be an excellent example to use in this essay, showing some of the limitations of using renewables that the country has faced, and the potential as an MIC to invest in the technology while maintaining energy security. Others considered the short-term/long-term argument.

Question 6

This was also a popular essay choice and responses were split between those that wrote about HICs, considering them as highly developed, and those which considered MICs as having currently high levels of economic development. The use of more than one located example was needed to illustrate how the view is not always correct. There was an opportunity to develop answers by comparing location and this was the approach chosen by many successful candidates. Some based their answers on Kuznets curve, often producing impressively academic answers.

Global interdependence

Question 7

(a) As there was no clear pattern, some candidates found this question more challenging than normal. It should be noted that weak patterns should be described as such. The mark scheme is clear about what is acceptable and there should have been four different descriptions. This can often be achieved by considering the overall pattern: where is the highest, where is the lowest, and any anomalies that do not fit the pattern. This technique was successfully used by many candidates,

but candidates should not be limited by this, and should look for as many patterns between the data as they can find, sometimes combining data to find patterns or anomalies within regions.

(b) Most candidates demonstrated good conceptual understanding of how donor countries benefit, with the best answers using examples of ways in which donors have benefitted, either materially or in reputation or geopolitically. Many candidates gave three developed explanations but as this is not required by the question, those who gave only two could achieve the highest level. Depth of knowledge and understanding are key here, and brief explanations are not enough to get the higher marks.

Question 8

This question allowed candidates the opportunity to critically evaluate the causes of the international debt crisis. There were some outstanding responses which showed a deep understanding of the role of both lenders and borrowers, and the ongoing complexity of each country's debt. Most essays addressed the question and there was clearly a lot of critical thinking going on from candidates. Some candidates showed confusion over 'aid'.

Question 9

This was a very popular essay choice, but responses were often weak. There are issues which need to be addressed. Firstly, candidates should be taught clearly what the difference is between economic factors and economic effects. There were many essays about the varied economic effects of international tourism, which remained in Level 1. Secondly, too many candidates only used their one case study to illustrate, without realising that this limits the response. One location cannot fully illustrate the growth of international tourism. Too many candidates wrote about the growth of tourism in their chosen destination. There was often some relevance, if economic factors that have contributed elsewhere were included, but candidates are encouraged to know a range of examples to illustrate the factors which have led to the growth of international tourism. Thirdly, candidates need to know the difference between economic, social and environmental factors and be able to focus on the one which the question requires. Too many essays tried to balance all three and produced a simplistic evaluation. The focus should be on economic factors to fully address 'to what extent…' in the answer. Admittedly, some factors are difficult to classify, for example, are improvements in air transport due to technology, knowledge, economics, or something else? Better candidates will consider which factors are often linked together. However, it was pleasing and interesting to see many candidates consider the impacts of the global pandemic on international tourism, some arguing that as a current factor, there is evidence that international growth has dropped significantly and that we may see more domestic tourism in the future instead.

Economic Transition

Question 10

(a) Comparing the data was done relatively well by candidates. They were asked to compare income distribution, not just the data sets. So the focus was on differences within the countries and between them. Most candidates noticed the main differences and similarities and overall this question was answered well.

(b) Responses to this question were poor overall, with many candidates unaware of why social indicators are advantageous in measuring inequality. Most could identify social indicators but did not explain why they are useful. Social indicators can highlight discrepancies in a country with high GDP yet poor income distribution or inequality between the sexes. Reference to the happiness index was helpful and some candidates did well to compare countries with high economic output but high worker stress levels with countries where quality of life outweighs standard of living to the benefit of their society as a whole.

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This was a popular question and answers were mixed. Some did not discuss much more than 'cheap labour' with others considering a range of factors without the necessary focus on profitability. Some candidates argued that this is the ultimate driving force behind all decisions made in FDI. There were some thoughtful evaluative essays which considered a range of factors that are linked to profitability.

Question 12

This was also a popular essay choice and one which was straightforward for candidates to score well on. Candidates could choose a range of examples or one country, and as long as they did more than describe the causes, they could reach Level 3. The best essays showed a depth of conceptual understanding and applied the various theories of regional disparity to their example(s) to make a sound conclusion. When the question allows the option to use more than one example, candidates are encouraged to do so. They can use their main case study for the bulk of the argument but using other locations can help them to be critical of their own argument and form a more rounded evaluation of causes.

GEOGRAPHY

Paper 9696/43
Advanced Human Geography Options

Key messages

Candidates are encouraged to be evaluative throughout the essay and not leave it until the conclusion. There were a pleasing number of Level 3 and Level 4 essays this series as candidates show continued improvements in evaluation. Some demonstrated in their introduction what conclusions they were going to work towards, and others finished each paragraph with a mini conclusion. This is a far more effective writing style than point, evidence, explain chains which are simplistic at this level if not developed further. Candidates who plan their essays usually do better.

The use of examples in **part (b)** of **Questions 1**, **4**, **7** and **10** needs to be encouraged as this can lift an answer which demonstrates secure knowledge to Level 3. Examples can be strategies and techniques and do not always have to be in named locations, although this is the most obvious way to show context.

General comments

There did not appear to be any change between June 2019 (the last summer series for this paper due to the global pandemic) and June 2021, with many candidates able to use recent events in their answers, particularly in relation to Global interdependence and flows of people, labour, capital, etc. around the world. An understanding of current affairs is not required but can be a useful tool for candidates to demonstrate the ability to evaluate and question the common narrative. It is pleasing to see candidates consider the future impacts that may be felt around the world in the wake of the global pandemic.

Comments on specific questions

Production, location and change

Question 1

(a) This question required candidates to describe the main characteristics of the bar graph. They should look for trends and identify anomalies, and in this type of question it is usually appropriate to describe the largest/greatest data set and the lowest/least as main characteristics. Most candidates identified that the largest percentage of farms were of the smallest size and could gain a development mark for each description. Fewer described the overall trend. Listing/stating each bar separately is not acceptable.

(b) This question was not well answered as explanations could have been applied to a farm of any size, not just small farms. However, credit was given for developed explanations relevant to small farms. There was a noted lack of awareness of techniques used by farmers who specifically have small amounts of land available to them.

Question 2

Very few candidates chose to answer this question, so it is difficult to comment on common mistakes or positives. There was a good balance between problems and benefits in responses and the use of examples to exemplify extension of cultivation. It was clear that a small number did not understand the idea of 'extension' in this context, and this may also be the reason that few candidates chose the question.

Question 3

This was a popular question in this topic, and in general candidates approached it with a good level of understanding about the role of labour. Stronger responses considered how the importance of labour has changed over time and considered how labour may be more important to countries at different levels of development. Content could be like **Question 11**, about TNCs choosing where to locate FDI, as cheap labour is a consideration in their choice. Therefore, candidates who chose both these essays could have found themselves writing similar content in both. However, better essays got past 'cheap labour' and developed other ideas about labour. The focus of the essay was expected to be on the role of labour. Therefore, it is not acceptable to equally evaluate the various factors listed in the syllabus against each other (labour, capital, land, etc.) with little mention of the role of labour. Other factors needed to be judged against this focus.

Environmental Management

Question 4

(a) The command words here 'suggest reasons why' is more than just stating reasons. Listing is unacceptable. Each reason suggested should be developed beyond just stating it as a point of interest. For example, 'The area has few tall trees' does not give enough detail to gain a mark. Instead, the expectation is this: 'The area has few tall trees which means that the wind is not obstructed.' Candidates should be instructed not to assume that the Examiner will understand their meaning and should develop each reason with a reasonable amount of explanation. Each reason needs to be linked back to wind turbines. Other candidates suggested only two reasons and spent too long explaining them, going into much detail which showed understanding but which cannot be credited beyond 2 marks.

(b) Many candidates suggested three negative impacts (see comment on 'suggest' in **4(a)** above) but the command word here is to explain. This requires developed explanation showing strong conceptual understanding and, ideally, the use of examples. Teachers should train candidates to produce three paragraphs of explanation, each one distinct from the other. It is possible to get the highest level with at least one well developed explanation, but three undeveloped explanations can remain in Level 1.

Question 5

This was a very popular question and there were some excellent responses. Those that did not do so well showed a lack of understanding of energy security. Instead, they took the general approach of assessing whether renewables were the best way to increase energy supply and/or meet demand. Other essays missed the LICs/MICs context completely. China proved to be an excellent example to use in this essay, showing some of the limitations of using renewables that the country has faced, and the potential as an MIC to invest in the technology while maintaining energy security. Others considered the short-term/long-term argument.

Question 6

This was also a popular essay choice and responses were split between those that wrote about HICs, considering them as highly developed, and those which considered MICs as having currently high levels of economic development. The use of more than one located example was needed to illustrate how the view is not always correct. There was an opportunity to develop answers by comparing location and this was the approach chosen by many successful candidates. Some based their answers on Kuznets curve, often producing impressively academic answers.

Global interdependence

Question 7

(a) As there was no clear pattern, some candidates found this question more challenging than normal. It should be noted that weak patterns should be described as such. The mark scheme is clear about what is acceptable and there should have been four different descriptions. This can often be achieved by considering the overall pattern: where is the highest, where is the lowest, and any anomalies that do not fit the pattern. This technique was successfully used by many candidates,

but candidates should not be limited by this, and should look for as many patterns between the data as they can find, sometimes combining data to find patterns or anomalies within regions.

(b) Most candidates demonstrated good conceptual understanding of how donor countries benefit, with the best answers using examples of ways in which donors have benefitted, either materially or in reputation or geopolitically. Many candidates gave three developed explanations but as this is not required by the question, those who gave only two could achieve the highest level. Depth of knowledge and understanding are key here, and brief explanations are not enough to get the higher marks.

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