

GEOGRAPHY

Paper 9696/11
Core Geography

General comments

There were few problems with the interpretation of the questions and excellent marks were achieved by a significant number of candidates from across the geographical range of Centres. The discrepancy between the calibre of answers to Physical Geography and Human Geography questions, noted in previous reports, continues. In previous reports it was suggested that there were signs of some improvement in the Physical Geography answers. However, this was not apparent this time. The imprecision in the use and understanding of Physical Geography concepts continues. This was especially noticeable in **Questions 7 and 9**. There is still confusion over the various processes in rivers, especially the nature and significance of helicoidal flow. This confusion is discussed further in the comments on individual questions. The calibre of sketches and diagrams is still a cause for concern. This was especially true of diagrams purporting to show helicoidal flow and the different types of flow found in rivers. Diagrams relating to plate tectonics also tend to be very poor and often inaccurate. Good diagrams enhance an answer but poor and inaccurate diagrams simply serve to emphasise deficiencies in knowledge and understanding. The accurate use of local examples continues to impress, especially in answers to the Human Geography questions, although there was a tendency to include examples that were either not relevant or too vague.

Although there is an improvement, many candidates are still failing to appreciate command words such as 'compare', 'overall', 'relationships', 'trend' and many more. Candidates are still explaining when all that is required is description. Comments in previous reports have stressed the importance of being able to evaluate issues with cogent arguments when answering questions in **Sections B and C**. There were again encouraging signs of an improvement in this respect. It is worth repeating that it is very difficult to obtain a mark in Level 3 without some form of evaluation or assessment.

Overall, the paper was completed by most candidates and time did not seem to be a major issue. Very few candidates answered all the questions in **Section A** or more than the one required in **Sections B and C**.

Comments on specific questions

Section A

Question 1

- (a) This was an example where precision in the naming of physical features was sometime lacking, especially in the naming of river cliff. The naming of slip off slope/point bar was more precise.
- (b) Explanation of the formation of meanders is not easy. However, it is made more difficult by an incomplete understanding of the role of riffles and pools and the nature of helicoidal flow. Many candidates seem to believe that the thalweg and helicoidal flow are the same thing. Few realise that helicoidal flow moves across the channel on the surface and then at depth. Diagrams of a violent corkscrew movement spiralling down the centre of the channel, unfortunately seen far too frequently, do little to aid the explanation.
- (c) This was answered by most candidates. The formation of oxbow lakes always seems to appeal to candidates.

Question 2

- (a) Most candidates stated the pressure at **A** correctly but the pressure at **B** caused much confusion.
- (b) Few candidates were able to state January correctly and also to provide a convincing argument as to why it should be so. A few candidates stated January correctly but were unable to explain why.
- (c) Although many candidates understood that winds transfer energy and that winds blow from high pressure areas to low pressure areas, few were able to relate this in a convincing way to the transfer of global energy. However, there were better candidates who understood that the tri-cellular model was part of the explanation.

Question 3

- (a) Most candidates produced correct answers for parts **(i)** and **(ii)**. However, the higher temperature required for part **(iii)** eluded many candidates.
- (b) Some candidates simply repeated the information provided in Fig. 2, which is a description and not an explanation. Most candidates were able to write about freeze-thaw weathering as being a process influenced by temperature, occasionally adding insolation weathering. Few were able to articulate the influence of temperature on chemical weathering processes.

Question 4

- (a) For part **(i)** almost all candidates obtained the first mark but many did not develop the answer by referring to the data.
- (b) Most candidates appeared to relish this question; most answers were good and some were excellent with a wide range of suggestions.
- (c) Most candidates were able to produce at least three good reasons with development and high marks were obtained by many. All the reasons given in the mark scheme were covered extensively.

Question 5

- (a) **(i)** Most candidates were able to gain some marks, although some candidates failed to provide sufficient reference to the data.
- (a) **(jj)** Most candidates produced reasons but they were often somewhat generalised and not related to a specific movement. Thus it was not clear whether the reasoning related to rural to urban or urban to rural movement.
- (b) There were some excellent answers covering most of the points noted in the mark scheme, with both advantages and disadvantages for urban and rural areas respectively.

Question 6

- (a) Part **(i)** of this question confused the majority of candidates and there were very few correct answers. This demonstrated that the nature and significance of bid-rent lines were not understood. The majority of candidates clearly guessed the answers, producing land uses that were not even represented on the bid-rent lines. For part **(ii)**, most candidates were able to describe one difference between the lines but often struggled to describe a second difference.
- (b) This was answered well with most answers containing two good reasons. Occasionally the answers lacked precision.
- (c) This question posed few problems and most candidates were able to obtain some marks. However, the level of detail precluded many obtaining high marks.

Section B

Question 7

- (a) (i) This question demonstrated the lack of precision in defining Physical Geography terms noted earlier. Most candidates had some idea of the nature of both percolation and infiltration but were unable to provide a precise definition.
- (ii) Extremely few candidates had an idea of what constitutes drainage density although many know that it influences the nature of storm hydrographs. Many thought it referred to the amount of water and not the density of tributaries.
- (b) Most candidates were able to name two patterns of flow within rivers but very few were able to describe and explain them, although turbulent flow was the best explained of the three patterns. Helicoidal flow was often misinterpreted as mentioned earlier. Diagrams were generally very poor.
- (c) Answers to this question were generally satisfactory, only differing in the level of description and explanation. Many extended the influence of human activity by considering the effects of global warming in possibly increasing precipitation amounts and intensity which was a sensible discussion. However, marks were somewhat depressed by a failure to discuss the 'extent to which' in the question. Without such a discussion it was not possible to obtain a mark at Level 3. Thus, natural causes of flooding were often ignored.

Question 8

- (a) In part (i), evaporation was understood by most but latent heat was understood by few candidates. In part (ii), few candidates were able to explain temperature inversion succinctly even if they understood what it was.
- (b) Both convection and orographic uplift were understood in general terms but detail was often lacking, especially with respect to orographic uplift. Few recognised that orographic uplift was often forced uplift of air that would not normally rise. Also, few realised that once condensation has occurred the release of latent heat meant that the temperature of the air decreased slower than the environment and thus uplift of air continued. Diagrams were often very simplistic.
- (c) There was a poor response to this question apart from those candidates who recognised the differences in specific heat capacity of land and sea. However, there were enterprising answers using the Asian monsoon as an example of the relative heating and cooling of land and sea.

Question 9

- (a) In part (i), many candidates realised that, for hydration to occur, water needs to be absorbed but many thought it was sufficient for the water simply to enter cracks and crevices. The need for the water to enter the molecular structure of the rock minerals was ignored. Freeze-thaw weathering was understood by most candidates. Chelation was often mentioned in answer to part (ii) but few could explain its operation. The penetration of tree roots was also a popular response.
- (b) There were some good answers to this question with substantial knowledge of the nature of both limestone and granite. However, the structure of the rocks was often ignored as was any consideration of the rate of weathering.
- (c) The best way to answer this question would have been to list the types of tectonic landforms. This would have enabled a well structured answer to be produced. However, most candidates embarked on a description of the subduction processes with the landforms being discussed almost in passing. Understanding of the formation of these landforms was often limited, especially when discussing the formation of mountains. The fact that many tectonic landforms evolve without being a part of the subduction process escaped many candidates. Occasionally mountain formation at collision boundaries was discussed, but very rarely tectonic landforms created by sea floor spreading or hot spots. There was also the common error describing the Hawaiian Islands as either due to subduction or sea floor spreading.

Section C

Question 10

- (a) (i) Although most candidates were able to provide a general definition, few produced the precise definition.
- (ii) The response was generally sound, although detail was often lacking.
- (b) This question produced some very good, detailed answers. Some answers were unbalanced, referring to either a reduction in birth rate or a reduction in death rate but not both.
- (c) Many candidates answered this question well, but many answers were unbalanced. There was a tendency to ignore the idea that overpopulation was influenced by the availability of resources as well as population numbers. Thus answers concentrated on the population issues, ignoring the idea that increasing the availability of resources might also reduce overpopulation. An assessment of the statement thus missed one of the key issues.

Question 11

- (a) (i) Many candidates ignored the fact that 'forced' needed to be explained. Even those who did explain it failed to gain the extra mark as a result of a lack of development.
- (ii) Most candidates were able to provide two acceptable reasons, but often without specific examples. Simply stating war on its own was not sufficient for many marks.
- (b) There was an excellent response to this question with many good up-to-date examples. High marks were achieved by many.
- (c) This was also answered well, although many candidates did not explore the 'to what extent' in sufficient detail, often simply providing a list of factors other than economic that might result in involuntary international migration. It was encouraging that very few misread the question as referring to internal migration.

Question 12

- (a) (i) Most candidates knew what urban renewal was in a general sense, but a precise definition was sometimes lacking.
- (ii) This part produced satisfactory answers.
- (b) This caused a few problems with precise reasons being few in number.
- (c) Questions on shanty towns usually elicit a good response and this question was no different. Understanding of the question was good and answers used a variety of specific examples to underpin the reasoning. Some of the answers were well structured and written.

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Paper 9696/12
Core Geography

General comments

Once again, candidates were well prepared for the examination, and most displayed a clear understanding of the concepts involved. Case study material was used appropriately, and the detail provided did much to enhance answers, particularly with the human questions. Exemplification is often one way of achieving higher marks, even if not specifically demanded.

There were few rubric infringements. Planning, in terms of time allocation, continues to be effective. The general clarity of both handwriting and expression continue to improve. The use of English is often impressive, particularly where English is not the candidate's first language.

Physical Geography questions often require the production of labelled diagrams. While there has been improvement in the quality of many diagrams in recent years, this is an area where further progress could be achieved through greater accuracy and better labelling.

The response to command words continues to improve. Candidates often think carefully through the demands of a question, but may still not achieve balance. 'Explanation' is sometimes sacrificed for extensive 'description', but occasionally candidates embark on lengthy explanations when only description is required. There is often a clear understanding of geographical processes, but definitions of terms themselves need to be precise. Identifying 'trends' from data is certainly improving. Candidates will often highlight anomalies and variations from the norm, which is often effective, but just identifying many slight variations over time may obscure a significant general trend.

Many candidates displayed extensive knowledge of the relevant geographical concepts, and the understanding of such topics as stability, instability and conditional instability has much improved. The geographical detail applied to levels questions is often relevant and of good quality. Exemplification effectively enhanced many of the answers. However, detail and exemplification alone are often insufficient to achieve Level 3. Evaluation and subsequent conclusions are normally required 'to assess the extent' or to answer 'how far do you agree?' More consideration could be given to these aspects of the questions.

Comments on specific questions

Section A

Question 1

- (a) Most identified X for erosion, but a surprising number of candidates did not identify correctly where deposition was dominant.
- (b) A variety of diagrams were used, including cross-sections and plans. However, the explanation of the location of the thalweg was not always linked to friction, and was confused at times with helicoidal flow.
- (c) Some excellent diagrams of the Hjulstrom graph which linked well velocity with size of material carried. Competence and capacity were terms understood by the majority of candidates, but many did not discuss both velocity and discharge. The question specifies 'transport', but too many placed an emphasis on 'erosion' and 'deposition'.

Question 2

- (a) Answered correctly by the majority of candidates.

- (b) Human activities contributing to global warming were generally discussed through deforestation and burning fossil fuels, but the effects of increased trapping of long wave radiation were not always clearly explained. Many are still confusing the enhanced greenhouse effect with CFCs and a hole in the ozone layer.

Question 3

- (a) This part was well answered.
- (b) Limited understanding of the causes of earthquakes, and very few linked them to the sudden release of pressure.
- (c) Although many correctly identified the relevant types of plate boundary, few discussed the folding of trapped sediment. Folding of continental masses is not acceptable.

Question 4

- (a) Most used the data effectively and identified fluctuations/anomalies. However, few identified an overall trend.
- (b) There were many effective answers with examples.
- (c) Exceptionally good answers were seen in this part, with a variety of reasons well expressed.

Question 5

- (a) Generally well answered, with some good detail and development.
- (b) A good range of both social and economic benefits, although a significant number of candidates wrote about the benefits to the country rather than to the migrants.

Question 6

- (a) Generally well answered, although a few candidates identified similarities rather than differences.
- (b) Again, generally well answered, although some discussed moving to the suburbs.
- (c) A wide variety of points made, but often lacking in detail or examples.

Section B

Question 7

- (a) Knowledge of throughfall and stemflow was unconvincing. Throughfall was confused with throughflow, and stemflow was seen as water moving internally through the stems of plants. Moreover, porosity and permeability are not clearly understood.
- (b) There was considerable contrast in the answers. Some candidates explained the formation of deltas effectively, and incorporated structural diagrams. Many answers, however, were simply descriptive, and therefore of limited value.
- (c) Human causes of drought were very well described, and included pertinent examples. However, many candidates did not support their answers with a discussion of physical causes, and so evaluation was limited. Consequently, access to Level 3 was limited.

Question 8

- (a) Definitions of relative humidity and absolute humidity were known by many, but mist was not.

- (b) The general concept of conditional instability is better understood than it was, and yet the need for a trigger mechanism, and the DALR/SALR interchange, remain points of weakness. Diagrams are more realistic and relevant, but are still quite likely to indicate temperature rising with height.
- (c) This proved a difficult question for candidates, as their emphasis was about urban and rural areas, rather than 'within' an urban area. Nevertheless, the urban heat island was explained well, and better candidates added both rainfall and wind.

Question 9

- (a) The processes of oxidation and hydrolysis were generally understood, but not identified as chemical weathering processes. Carbonation was answered to a high standard.
- (b) This produced some confused answers. Many tried to link island arcs and ocean ridges to the same type of boundary, so that both convergent and divergent boundaries were not always considered. Diagrams were therefore often inaccurate, and not convincingly labelled.
- (c) There were some excellent discursive answers, clearly linking the weathering of granite to physical and chemical processes and the importance of temperature. Better answers also considered the availability of water and rock structure, etc.

Question 10

- (a) Many candidates found it difficult to draw an age/sex pyramid for Stage 4, as well as label the main features.
- (b) Answers tended to be descriptive rather than explanatory, which limited the marks available.
- (c) There were some excellent accounts of disease, war, birth control and migration, all helping the population to adjust. Resource development was rather neglected, and the final assessment of linkage to a population ceiling was too often omitted, which limited answers to Level 2.

Question 11

- (a) High scoring and convincing, with many attempting to differentiate between LEDCs and MEDCs.
- (b) A wide range of constraints were explained, with detailed exemplification.
- (c) Some candidates made the mistake of discussing the source countries, but otherwise there were many convincing answers with excellent exemplification.

Question 12

- (a) Effective answers generally, relying on social and environmental characteristics.
- (b) Many understood that the location of shanty towns reflects the aspirations of the residents and the economic realities of the situation. Candidates are now more secure in their understanding of shanty towns, and this is reflected in the quality of the answers.
- (c) Well answered, with some excellent exemplification of areas in decline, but also schemes such as Docklands and other areas of gentrification.

GEOGRAPHY

Paper 9696/13
Core Geography

General comments

The comments that follow are based on a relatively small sample. Some unpopular questions were answered by few candidates. As might be expected, the response was mixed with some very good answers but also some very average answers. The Physical Geography questions still cause more problems than those related to Human Geography. Some quite elementary Physical Geography concepts are little understood. There were also some misinterpretations of the question wording. Some candidates interpreted the daily energy budget as meaning the daily use of electricity in houses. Questions on slopes, such as those in **Question 9**, always cause some problems, but the response this session was somewhat better. It is worth emphasising that there have been some changes in the revised syllabus (2018–2020) with respect to slopes and slope processes.

Although there is an improvement, many candidates are still failing to appreciate command words such as 'compare', 'overall', 'relationships', 'trend' and many more. Candidates are still explaining when all that is required is description. This was especially true of **Question 9(a)(ii)**. Comments in previous reports have stressed the importance of being able to evaluate issues with cogent arguments when answering questions in **Sections B** and **C**. There were again encouraging signs of an improvement in this respect. It is worth repeating that it is very difficult to obtain a mark in Level 3 without some form of evaluation or assessment.

Overall, the paper was completed by most candidates and time did not seem to be a major issue. Very few candidates answered all the questions in **Section A** or more than the one required in **Sections B** and **C**.

Comments on specific questions

Section A

Question 1

- (a) Most candidates were able to answer most of the components correctly.
- (b) There were two main parts to this question. However, most of the emphasis in the answers was on the role of rock characteristics. Porosity and permeability were frequently discussed but without a clear understanding of their respective definitions. There was also an inadequate coverage of both flows and stores with the emphasis being on water movement in the soil. The role of rock structure in determining groundwater storage was invariably omitted. It was also not realised that there could be surface storage as a response to impermeable soils. Occasionally, sand was contrasted with clay but without a reasoned discussion of their respective properties. Thus, overall, the scope of the answers was very limited.

Question 2

- (a) Most candidates were able to describe the weather phenomena but few were able to offer a valid explanation.
- (b) The question asked for a discussion of two differences between the daytime and night-time energy budgets. Most candidates gained marks by noting and explaining the differences between incoming and outgoing radiation. However, many struggled with a second difference, and it became clear that there is confusion between sensible heat transfer and latent heat transfer.

Question 3

- (a) Most candidates produced at least three correct answers. The identification of rock fall was the element that caused most problems.
- (b) Differences were usually expressed in terms of flows being wet and slides being much dryer and sometimes in terms of speeds with flows being thought to be a faster movement. The fundamental nature of the movement, such as slides moving over a well defined failure surface and flows showing internal deformation, was often ignored. However, some of these characteristics were present if diagrams were produced. Thus some credit was gained from the diagrams even if the information in the diagrams was not explained in detail.

Question 4

- (a) This was correctly answered by the vast majority of candidates.
- (b) Most answers were good and some were excellent with a concentration on changes in birth rate, migration and sometimes natural disasters. Data collection and data handling issues were rarely mentioned.
- (c) There were many excellent answers to this question with the complete range of issues, as mentioned in the mark scheme, discussed.

Question 5

- (a) (i) Most candidates were able to gain some marks, although some candidates failed to provide sufficient reference to the data. Many relevant factors, other than those listed in the mark scheme, were covered. However, some candidates had trouble in interpreting the word pattern.
 - (ii) Distance was the most popular explanation, but ethnic relations were often discussed as well as LEDC and MEDC contrasts for economic migration.
- (b) There were some excellent answers covering most of the points noted in the mark scheme.

Question 6

- (a) This was answered correctly by most candidates.
- (b) This was answered well with most answers containing two good reasons. Lack of space and lack of capital/technology were the most frequent reasons given.
- (c) There was a little confusion over the meaning of the term 'develop'. Some candidates suggested that develop meant that city authorities deliberately developed shanty towns to cater for the influx of population. Candidates were given some credit for this. As the mark scheme indicates, simply writing about rural-urban migration failed to achieve high marks.

Section B

Question 7

- (a) (i) This was answered well with one or two exceptions.
 - (ii) Most candidates gained some marks by referring to the drop in velocity, but the relationship between velocity and the size of material was mentioned by very few.

- (b) Most candidates were able to produce a diagram to show the relative location of pools and riffles in the meandering river channel, although there was sometimes confusion between riffles and point bars. The relationship between pools and riffles and the formation of meanders was less well understood.
- (c) Prediction was often with respect to rainfall monitoring. A sizeable minority of candidates still believe it is possible to predict flooding by looking at the storm hydrograph. However, noting how the hydrograph varies downstream during a rainstorm can be helpful. Of much greater use could be the calculation of recurrent intervals of past floods. Part of the assessment could have been a consideration of how accurate such recurrent intervals are. It was good to see some excellent answers suggesting that the use of past records is difficult as a result of global warming and the possibly increased occurrence of high intensity storms. Also, land use changes within drainage basins means that the runoff 'models' have to be continually adjusted. Answers to this question were generally satisfactory, only differing in the level of description and assessment.

Question 8

- (a) In part (i), stability and instability were generally understood but precision in defining the concepts was sometimes lacking. In part (ii), most candidates were able to score reasonable marks by explaining the greenhouse effect.
- (b) There were few good answers to this question. Diagrams, if present, were lacking in detail and accuracy. There was general understanding that the latitudinal variation in incoming solar radiation was influenced by the angle of the sun. But the logical extension of this to a discussion of excesses and surpluses was less well developed. The distance from the sun is unfortunately still prominent in many answers.
- (c) Temperature differences were the main climatic effects discussed with humidity, wind speed and precipitation being mentioned only by the better candidates. However, good marks were obtained by many candidates.

Question 9

- (a) (i) Most candidates were able to define sea floor spreading and divergent plate boundaries.
- (ii) This was also answered well apart from a tendency to explain rather than just describe. Thus the detail of the landform discussed was often quite basic.
- (b) Few candidates realised that there was a need to refer to the form of the slopes. Also, there is still too frequent reference to rocks being soft without qualification. Limestone is often referred to as being soft when it is nothing of the sort. Knowledge of rock type and structure was quite rudimentary.
- (c) Answers to this question were far better than those for part (b). The emphasis was on how human activity reduces the stability of slopes, but the better candidates did realise that human activity can also increase slope stability. Without this balance it was difficult to obtain a Level 3 mark.

Section C

Question 10

- (a) (i) Although most candidates were able to provide a general definition, few produced the precise definition linking optimum population to the resources available.
- (ii) The response was generally sound, although detail was often lacking. Emphasis was mostly on limited service provision and underuse of resources.
- (b) This was an accessible question which produced some very good, detailed answers. However, the emphasis was mostly on increased birth rate rather than a contraction or exhaustion of resources. It is important to stress that any question on overpopulation requires a discussion of resources.

- (c) Some candidates found it difficult to understand the economic development part of the question as they had a limited understanding of the concept. The relationship between economic development and reduced birth rate was mentioned by only a few. The link between economic development, technology and resource development was better understood.

Question 11

- (a) (i) Many candidates omitted the duration of one year in the definition and failed to gain the third mark.
- (ii) Most candidates were able to provide two acceptable causes but often without sufficient development of the link between these causes and the processes of internal migration.
- (b) There was a good response to this question. However, answers were often unbalanced with many candidates ignoring the fact that governments might wish to encourage migration as well as discourage it.
- (c) This was answered well but often with a limited range of environmental factors.

Question 12

- (a) (i) Most candidates were able to give the meaning of the term CBD.
- (ii) Most candidates possessed some understanding of the characteristics of CBDs but the level of detail and range of features were somewhat limited. Few recognised the absence of manufacturing and low residential population.
- (b) Many of the elements listed in the mark scheme were mentioned by most candidates. However, the level of detail and development of the ideas were often somewhat limited. This development was needed to push the marks into the upper band.
- (c) Many candidates found this question difficult. With insufficient knowledge of urban renewal schemes, land purchase, land allocation and infrastructural development it was difficult to produce a coherent argument.

GEOGRAPHY

<p>Paper 9696/21 Advanced Physical Options</p>
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General comments

The response of candidates to the paper was generally sound, although some questions were answered better than others. Most of the questions had several components and many candidates concentrated, whether deliberately or not, on one element to the detriment of others. This precluded marks at the upper end. Diagrams and sketches were often of a poor quality. This was especially true of diagrams associated with the coastal depositional landforms in **Question 3(a)**. Many of the questions would have benefited from a few brief sentences outlining the issues that were being discussed, especially with respect to the part **(b)** elements in the question. This was generally lacking, thus making the answers unstructured and the logic of the discussion difficult to follow. To take one example, **Question 1(b)** concerned the impact of human activities on the vegetation of either a tropical rainforest or savanna ecosystem. It would have been useful if the nature of the vegetation in these ecosystems was described at the beginning. However, most candidates embarked on the analysis of impact without saying anything about the nature of the vegetation. Thus, the logic of the argument was difficult to follow.

Comments on specific questions

Tropical environments

Question 1

- (a) Most candidates seemed to know what the Intertropical Convergence Zone was and were able to provide a reasonable description of its characteristics and explain, in somewhat limited terms, its seasonal changes. However, the explanation of its associated climate was often quite basic, simply referring to the amount of precipitation.
- (b) There was a problem with the interpretation of this question, especially when referring to the tropical rainforest ecosystem, the more popular of the two choices. As noted in the General comments, few candidates commenced their answers with a description of the nature of the vegetation. Also, questions in the past have often asked for the problems of sustainable management. However, this question was focused on the management of the vegetation. Many candidates considered the question referred to sustainable management, such as the Milpa System. This system is admirable for sustainable agriculture but does not really refer to the sustainable management of the vegetation. As the mark scheme emphasises, discussion should have been focused on sustainable logging and the use of forest products sustainably. Those candidates who answered using the Milpa System gained credit, but not as much as if they had answered the question with respect to vegetation *per se*. There was not a similar issue with discussion about vegetation in a savanna ecosystem.

Question 2

- (a) Little understanding of tropical karst was demonstrated. Some candidates were able to describe, in very general terms, the nature of tropical karst landforms but were not able to provide a convincing explanation for their formation.

- (b) This part of the question, in contrast, was answered well. Nutrient cycling and Gersmehl diagrams are well known and the differences between tropical rainforest and savanna ecosystems, with respect to nutrient cycling, are generally well explained.

Coastal environments

Question 3

- (a) There was a very weak response to this question. The nature of spits was generally known, but in very general terms. Some diagrams showed the recurved ends of spits curving in the wrong direction and sometimes extending vertically out from a coastline. Longshore drift was often referred to, but the understanding of its operation was often vague. Most offshore bars, as the name suggests, form offshore. A spit linking two headlands is an unusual landform. Even bars, such as Loe Bar in Cornwall and Slapton Ley in Devon, have been formed by waves pushing bars onshore. Most offshore bars are created from breakpoint bars. Also, tombolos are rarely formed by longshore drift, but by refraction around an offshore island with the two refracted waves meeting on the landward side of the island, leading to deposition. Even Chesil Beach, Dorset, England, perhaps one of the more famous tombolos, is thought to have formed by rising sea levels pushing the sediment onshore.
- (b) In contrast to the answers to part (a), this part was well answered. Candidates seem to like corals as a subject for study. The figure provided a number of clues for the question. Thus the answer required candidates to take these clues and add information about other threats to corals. A number of answers simply used the information in the figure and added very little to it. There is also some confusion concerning the effect sea level rise has on corals. Most corals can grow fast enough to keep pace with the current rate of sea level rise. Candidates seem quite content to discuss sea level rise for the initial formation of coral reefs and even to use it to explain the sequence from fringing reef to atoll formation, but seem to regard the current rate of sea level rise as debilitating. However, it has to be stressed that there were many excellent answers to this question which tended to counteract a poor response to part (a).

Question 4

- (a) This was another question where diagrams were quite poor, especially those purporting to show salt marshes. Description and explanation of sand dunes were more detailed than those for salt marshes. The need for a large expanse of beach with strong onshore winds was often omitted from an explanation of sand dunes. The evolution of salt marshes was understood only in a very general way. The morphology of salt marshes, such as creeks and salt pans, and relationships to tidal range were often omitted.
- (b) There were some excellent answers to this question with detailed description and excellent assessment. However, there were answers where completely inappropriate stretches of coastline were chosen, such as the entire east coast of North America, or coasts where the range of problems was limited. There were also some generic answers, not related to any specific stretch of coastline.

Hazardous environments

Question 5

- (a) This question received an excellent response. The development of tropical storms is well known and most candidates were able to explain the hazardous effects with relevant, detailed examples. Occasionally the range of hazards was somewhat limited. It was encouraging to read the level of detail provided by many candidates.
- (b) Most candidates were able to describe and explain the nature and hazards of one hazardous environment with earthquakes and volcanoes being favourites. However, some answers explored the hazards of a geographical area, such as Japan, where a variety of hazards are present. The level of detail was often excellent, with accurate specific information. The assessment of the effectiveness of management strategies was also good.

Question 6

- (a) There was a mixed response to this question. Many of the diagrams were extremely poor and quite basic, emphasising the point made earlier about the use of diagrams. Many simply showed a conical shape with a vent at the top. This is far below the standard expected at this level. However, the treatment of two different types of eruption was much better. Most candidates chose to contrast an effusive, basalt-rich eruption, such as the Hawaiian Islands, with a more explosive, Pelean type eruption, with more acidic, rhyolitic lava. Thus, there was often compensation for a poor diagram in answers to the second part of the question.
- (b) Most candidates took a broad view of monitoring, which was perfectly acceptable. The detail provided tended to vary with the type of mass movement chosen. Some types of mass movement are more capable of being monitored than others. Those that chose snow avalanches were able to provide more detail. This was also true of the second part of the question where the effects of snow avalanches are well documented. The Nevada del Ruiz mudflow was a popular example with good detail provided.

Arid and semi-arid environments

Question 7

- (a) There were several components to this question and one of these components was often omitted. There was no instruction to compare the two climate graphs but many candidates did, which made the answers more complicated. Also, many candidates simply described the temperatures and precipitation amounts, month by month, rather than synthesising the seasonal variations. The role of the ITCZ in influencing precipitation amounts in semi-arid areas was very rarely mentioned. Low precipitation amounts were often explained rather than the seasonal variations.
- (b) The response to this question was generally sound. However, many candidates simply wrote about all the weathering processes they could think of, whether they were characteristic of hot arid and semi-arid environments or not. The emphasis was on hot environments, thus freeze-thaw weathering was not usually appropriate unless special circumstances were invoked. The effect of the weathering process on landforms was rarely mentioned, although tafoni, the result of salt weathering, is present in many arid areas. The distinction between granular and block disintegration was mentioned by some candidates.

Question 8

- (a) This question produced a number of creditable responses, although the detail concerning the operation of the respective processes was sometimes limited. Most candidates chose alluvial fans as an example of a landform created by depositional processes. While most chose wadis for the erosional processes, the detail provided was more limited than that provided for alluvial fans. Some candidates chose inselbergs/mesas for the erosional landform but without any real understanding as to how they were formed by water erosion. Most candidates realised that many of these landforms were relict features from a previous wetter period.
- (b) The detail provided as an explanation of soil degradation was somewhat limited. There was rarely a mention of the natural factors that can lead to soil degradation. The majority of the answers tackled the role of human factors with a very limited analysis of deforestation, overcultivation and overgrazing. Without an analysis of the natural factors, it was extremely difficult to assess the role of human factors. Most candidates simply examined the role of human factors with little assessment.

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General comments

The overall quality of responses to this paper was in line with that of past examinations. Many candidates displayed a sound knowledge of physical processes but they should strive to demonstrate a clearer understanding of why these processes lead to the development and formation of specific landforms.

Candidates should try to use named examples in order to illustrate their ideas; however, a more detailed use of appropriate case studies, integrated into the response, would gain more credit and add greater quality to the answer.

Although some candidates used diagrams and sketch maps, more students should be encouraged to do so in order to increase clarity and geographical perspective. Accurate labelling and effective annotation would then provide the basis for a strong response.

Once again the paper provided a variety of graphs, photographs, maps and diagrams. It is important that candidates do not merely repeat or describe the stimulus material but interpret and elaborate on it in order to develop their ideas.

Comments on specific questions

Tropical environments

Question 1

- (a) Most candidates successfully described the main characteristics of the two climate graphs. Greater use of specific amounts and its annual distribution would have improved some answers. There was a wide range in quality of explanation of the differences indicated by the graphs. Some merely discussed atmospheric pressure systems and their development, whereas the better responses explained the movement of the ITCZ and its associated weather systems within a specific geographical context. Candidates should be encouraged to identify patterns and trends shown on the graph rather than simply quoting figures for every month throughout the year.
- (b) Most successful responses used a Gersmehl diagram as the basis of their answer and applied it to the ecosystem of their choice. A sound reproduction, appropriately scaled, gave the candidate considerable scope for illustration and elaboration. Unfortunately, many candidates limited their human activities to deforestation and the reasons for it. Better responses considered the impact of this on soil fertility. This question gave candidates the opportunity to use more sustainable human activities and to evaluate them in comparison to more damaging practices.

Question 2

- (a) This question focused on the main characteristics of a deep weathering profile and the importance of rock type and chemical weathering. Basic responses tended to be very generalised with limited reference to granite and specific chemical processes. Clearer and more detailed answers not only considered the importance of vegetation but also explained the significance of a tropical environment. The best answers integrated the main features of the weathered profile with a detailed explanation of the specific processes responsible for them.

- (b) Most candidates provided a sound description of the main characteristics of the vegetation in their chosen tropical ecosystem. The better responses also provided a clear explanation of how and why these features were developed within a tropical environment. Again, many candidates successfully outlined the climate within their chosen ecosystem but did not always apply these characteristics to the issue of sustainably managing the vegetation.

Coastal environments

Question 3

- (a) This was a straightforward question but it required the accurate identification of coastal landforms shown in the photograph. Some candidates failed to recognise sufficient features and limited the quality of their response. The better answers integrated a detailed explanation of how and why specific erosional processes produced the characteristics of features shown on the image.
- (b) The vast majority of candidates were clear about the conditions required for coral growth and development. Some responses then described or listed the threats to coral. However, the better answers evaluated a wide range of human activities and used specific geographical case studies to illustrate their judgements.

Question 4

- (a) The large majority of responses indicated the main factors affecting the development of different beach profiles. Only the more successful answers explained exactly how the composition of beach materials and wave types produced these differences. It was pleasing to note an improvement in the quality of diagrams, although clearer and more accurate labels and annotations would further enhance their illustrations.
- (b) Most candidates identified a coastline where sustainable management was significant. Few responses, however, included a detailed focus on the problems of sustainability in their chosen location. The strongest answers explained how a range of solutions had helped to create a more sustainable coastal environment. This question offered the opportunity to include clearly labelled sketch maps, and the best responses integrated them within their assessment.

Hazardous environments

Question 5

- (a) The vast majority of candidates had a sound knowledge of convergent and divergent plate margins, although few made the specific differences the main focus of their response. Many students described the development of volcanoes along a plate margin, but only the better responses explained how and why they became established in specific locations. Diagrams were used to illustrate ideas, but candidates should strive to integrate them within the text and their arguments.
- (b) Most responses included a range of techniques for monitoring earthquakes. Weaker answers tended to either list them or merely describe them. Greater quality was achieved through a detailed explanation of how and why a specific technique was successful in monitoring earthquake activity. The second aspect of this question proved more demanding. Only the better responses seriously questioned the success of earthquake prediction. Most candidates, however, had a clear knowledge of several ways in which the hazardous impact of earthquakes may be reduced. The very best responses used specific locations and events in order to assess the success of earthquake prediction.

Question 6

- (a) Most candidates indicated a good knowledge and secure understanding of why slopes become unstable. However, a significant number of candidates struggled to establish how this instability resulted in two different types of mass movement. Links were often vague and generalised with very basic diagrams. The better responses often used well labelled and annotated diagrams to elaborate on their explanations.

- (b) The better responses managed to focus on the problems and issues created when tropical storms make landfall. Most candidates were clear in their knowledge of the various impacts of primary hazards associated with tropical storms, but the best answers considered the impact of secondary hazards in specific locations and after particular tropical storms.

Arid and semi-arid environments

Question 7

- (a) Most candidates were able to describe the adaptations made by plants in these environments. However, the precise reasons for these adaptations were only explained in the best responses. Candidates gained credit for reference to specific plants and their ability to use scarce rainfall and extremely high temperatures.
- (b) Many responses left scope for a more detailed description of the landforms. The contribution of water was often acknowledged but not frequently assessed. The best responses discussed the probability that the landforms were relict features from the geological past.

Question 8

- (a) Most candidates could describe the processes, but many failed to explain how and why they had a significant effect on the arid environment. The better responses used specific landforms to illustrate the various effects of erosion, transport and deposition.
- (b) Most candidates acknowledged the difficulties of establishing sustainable management in arid or semi-arid environments. However, the unreliability of rainfall and high wind speed was not highlighted as much as the low annual totals. Although most candidates understood the concept of sustainable development, few candidates were able to assess the success of specific schemes. The best responses used case studies in relevant geographical locations and used evidence to support their judgements.

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General comments

The number of candidates who took this component is sufficiently small that generalisation is difficult. However, the general response was very good with some especially good answers to **Question 3** and **Question 6**.

Comments on specific questions

Tropical environments

Question 1

- (a) Knowledge of the structure of tropical rainforest vegetation was limited but the understanding of nutrient cycling was quite good. Gersmehl diagrams tended to be a little inaccurate with respect to the relative sizes of the nutrient stores.
- (b) Little knowledge or understanding was shown.

Question 2

There were too few answers to make comment appropriate.

Coastal environments

Question 3

- (a) There was generally a good response to this question. The question only asked for the processes by which waves transport sediment, thus there was no obvious confusion as to whether destructive waves increase or decrease the slope of beaches. Both swash-aligned and drift-aligned processes were described.
- (b) The conditions for coral growth were well known and the detail for the explanation of atoll formation was generally excellent. All the main theories for atoll formation were described in a very authoritative manner. Unfortunately, there is often a mismatch between an understanding of the role of sea level rise in atoll formation and the current effect of sea level rise on corals. Many answers argued that present-day sea level rise was sufficient to drown corals, whereas it was clear from the theories of atoll formation that coral growth is well able to keep pace with sea level rise.

Question 4

- (a) There were two separate parts to this question, both of which were answered well. The nature of coastal sediment cells was well understood as were the formation of depositional landforms and the processes of sediment movement.
- (b) There was more emphasis on the processes rather than the factors. Analysis of factors tended to concentrate on wave attack, with geology and structure of the cliffs given only a cursory analysis. Sub-aerial processes were often ignored except for some very general comments about weathering.

Hazardous environments

Question 5

- (a) Response was good in the few answers seen.
- (b) Most candidates were able to describe and explain the nature and hazards of tropical storms, using relevant examples. The second part of the question was often very speculative.

Question 6

There were very few answers to this question with tsunamis being better known and understood than mass movements.

Arid and semi-arid environments

Question 7

There were too few answers to make comment appropriate.

Question 8

Answers to part (a) were generally sound even if a little lacking in detail. The response to part (b) was limited by a lack of knowledge of soils in hot arid and semi-arid environments.

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Key messages

- Correct use of subject terminology and concepts and their integration into responses enhances quality.
- Plan responses so that the focus of the question is the focus of the response. Check as you write so that this focus is retained.
- All parts **(b)** require evaluation (AO4), so develop flexible evaluative approaches and the vocabulary for effective assessment.

General comments

Some excellent geography was produced, demonstrating secure knowledge and understanding of the syllabus content, good examination technique and a 21st century global perspective which was realistic and impressive. At the other end of the spectrum, achievement was limited by some rubric errors, by not answering two questions in full, by misreading or misinterpreting questions, and/or by reproducing recall knowledge in the broad subject area without answering the actual question set.

Some evidence was seen in the scripts of a candidature who are increasingly accustomed to typing rather than writing responses. There was a notable increase in the proportion of scripts with poor handwriting, some of which were barely legible. Providing typed scripts is a good idea when handwriting is known to be poor. It helps the Examiner and it may reassure the candidate and remove a source of stress. Another manifestation of the growth in the use of computers and word processing was essays with evidence of 'cut and paste' type instructions, of insertions that had been made, or significant crossings out. More practice at essay writing long hand, combined with training in planning responses, could be of help.

The Insert contained mixed resources as it has during the lifetime of 9696 Paper 3. Photograph A was an oblique colour aerial photograph; Fig. 1 a composite line and bar graph; Fig. 2 a model of the tourism multiplier effect; and Figs. 3A and 3B were maps of the Gauteng City Region, South Africa and the human development index (HDI). The main limitations on the interpretation of these resources were in reading the scales for Fig. 1; recognising what was absent from Fig. 2; and describing (spatial) pattern on Fig. 3A. See comments on specific questions below. As in the new revised syllabus, where there will be a compulsory resource-based question in each Option, which all candidates must answer, teachers are reminded of the importance of the development of skills in data reading, interpretation and analysis as covered by AO3. This should be done throughout the course using a wide variety of styles of resources. In any one examination series, accessible examples of such materials can be found in the inserts to the question papers for the other time zone(s).

Comments on specific questions

Production, location and change

Question 1

The best responses followed the command words carefully and had a dynamic focus on agricultural change.

- (a) (i)** Most candidates identified that deforestation and terracing had occurred. Fewer observed the development of a network of access roads within the plantation. The best responses described the ways, rather than simply stating them. A full response included clear reference to Photograph A for which one mark was reserved.

- (ii) Success in answering this involved understanding the meaning of 'extension of cultivation' and identifying issues clearly within the explanation. Any issues were valid: negative or positive, immediate or longer term, and in any dimension (economic, social, environmental, political). Most responses were environmental, for example in relation to loss of habitat, biodiversity and soil degradation. Some candidates explained the issues of displacement and loss of traditional way of life for rainforest inhabitants. Others considered the issue of indebtedness and market pressures on palm oil producers.
- (b) The question contained a statement. This was quite long and needed reading at least twice. It provided a natural plan for the response: first assessing agricultural change from national policies, then assessing the role of individual producers in agricultural change. A fully balanced response was not needed for high reward, although both national policies and individual producers were needed for an effective comparative response. Three ways to enhance response quality would have been, firstly, to provide exemplar detail in place of broad comments or simple naming, such as 'the Green Revolution in India' or 'farming in Zimbabwe'. The second way was to make links between policies and producers; for example, the Green Revolution (a national policy) affected the agricultural practices of individual producers. Many farmers seeking to change agricultural production need access to elements of national policies, such as the provision of finance, agricultural extension services or subsidised farm equipment. Farmers also benefit from what is being done by national policies such as land reform, investment in irrigation or better marketing. The last way to improve responses was to provide better evaluation that was more developed than 'I agree that ...'. In the question, the use of the phrase 'how far do you agree' invited this fuller assessment.

Question 2

Response quality was generally poor, sometimes constrained by an historic Weberian approach in (a) and a narrative approach in (b).

- (a) A full approach covered location and character as two things rather than one. Location can be seen as where the manufacturing is and character as what manufacturing is like, e.g. heavy/light, scale, products, workforce, processes, etc. Examiners marked the response on overall quality (holistically) without separate marks for location and character or description and explanation. Better responses considered transport in terms of modes (road, rail, air, sea, pipeline) and costs. They integrated a variety of examples and were contemporary in character, for example recognising global markets and global production networks. Some integrated concepts such as profit maximisation, cost minimisation or the spatial margins to profitability to good effect and gained credit for this. A few explained the significance of good transport infrastructure and access to ports and airports for named EPZs.
- (b) Any position was creditable if an evidence-based argument was given. Most candidates disagreed with the statement either because of the ineffectiveness of the policy or its application, or because of the vigour of other factors operating in the chosen context(s). Some of these other factors could themselves be linked to government policy, for example TNCs which may seem to act independently because of their size, strength and global reach, may be impacted significantly by government policy. For example, this could be a government seeking to attract foreign direct investment (FDI). Some effective assessment was seen of government corruption and mismanagement working against government policy. In considering NICs such as the Asian 'tigers', the influence of government policy was assessed in many ways, from education and skills training to investment in infrastructure and protecting the products of emergent industry from competition.

Environmental management

Question 3

Knowledge and understanding of energy production from nuclear sources is improving, see **(a)(ii)**. In **(b)**, some very good responses were seen considering economic (financial) cost concerns closely, alongside other concerns such as energy security and sustainability, or other costs – notably social cost and environmental cost.

- (a) (i)** An effective response referred to both amount and share, i.e. two trends as shown by the bar graph and the line graph, and provided accurate data support. Many descriptions of the trends would have been enhanced by the use of adjectives such as steady, gradual or fluctuating. It was important to use the correct scale for each trend; some candidates got them the wrong way round and some used both scales for both trends mistakenly.
- (ii)** Reasons were needed for each of the trends, i.e. the rising trend in amount (with some falling back after 2010) and the falling trend in percentage share. There was more written about the falling trend (decline) than the rising trend (increase). The overall increase in amount could be explained by a number of reasons including technological improvement, improved performance, a desire for energy security and the expansion of production from nuclear sources in specific countries. The declining share could be explained by a combination of reasons including the development of other energy sources, concerns about the risks associated with nuclear power and changes in government policy. This declining share was done better by most candidates. Some supported their reasoning with named examples and/or data, both of which enhanced response quality.
- (b)** The full range of response quality was seen from some superb, astute, developed assessments of cost relative to other concerns within a detailed strategy framework, to some basic responses showing what the candidate wanted to write and could remember. This was often about China's Three Gorges Dam, which is a scheme rather than a strategy. The best responses picked up on two further key words in the question, 'recent changes', and pursued these carefully. In many cases the changes involved the shift from non-renewable sources, especially coal, to renewable sources, because of concerns about resource depletion, energy security and environmental impact.

Some candidates gave financial cost data, both at the level of total cost and of unit costs. Some noted that because of the cheapness of coal and the total cost of one new element of strategy being very great, i.e. millions of dollars, other concerns must be influencing the country's government to make changes. One underlying concern is the ability to meet increasing energy demand in the early 21st century, after peak oil, in the context of an uncertain political world and global economy, when there are continued concerns about human-induced climate change from the use of fossil fuels. It was important to be able to write about an overall energy strategy (or at least most of it) rather than one element, such as 'wind in Germany' or a scheme, as above. Some better essays omitted a key element, such as nuclear power, from the chosen overall strategy, limiting their effectiveness.

Question 4

The open demand in **(a)** allowed candidates to gain credit from devising and structuring their own response. In **(b)**, the management focus required the careful selection, application and direction of learned material.

- (a)** Two keys to a good quality response were the integration of detailed examples and the coverage of a number of different ways in which degradation occurred. Clearly it was also important to maintain the focus on rural environments. Answers which simply stated the ways, for example, 'overpopulation, overgrazing, overcultivation', could be improved by describing each of them. Answers which only described these ways could be improved by explaining them, usually in terms of how the activity or activities were the result of pressure(s) and combined with physical factors, such as drought or soil erosion, to degrade the chosen environment. Negative reasoning, such as the absence or lack of sufficient knowledge and understanding of sustainable agriculture or good management, was also creditable. The inability to monitor an environment effectively or deliver/enforce an appropriate management plan, for example in a national park or tourist area, were creditable. Some excellent work of high environmental awareness was seen. Most responses could be enhanced by one or more of 'the 3 Ds': detail, depth and development.

- (b) This fresh approach to the case study of the degraded environment comprised two demands: an outline and an assessment. It required a considerable amount of own input from the candidates during the examination in terms of processing their knowledge and an explicit focus on management. One Examiner commented “successful answers ... were able to address real management problems such as culture, poverty and the scale of the problem.” Many candidates wrote instead, unnecessarily, about the causes of the environment’s degradation and of the overall success in upgrading it, which were not required. This kind of oblique response left the Examiners identifying both creditable points and irrelevance. Some excellent work was seen, for example, in relation to the degradation of the Amazon rainforest. The main problems of its management were outlined including scale, the need for cross-border co-operation, the need for finance, conflicts of interest, corruption and profit-maximising businesses. Different attempts to solve these problems were then considered with a realistic appraisal of successes and failures, behaviours, constraints, unforeseen difficulties and remaining challenges. For those who chose a degraded urban environment, such as London Docklands or a named shanty town, it was important to cover the built/physical environment sufficiently and not just people and standard of living issues. Overall, this part-question is a good example of the need for careful focus in the second key message at the start of this report.

Global interdependence

Question 5

The concept of global interdependence through Fair Trade and aid were seen in many responses.

- (a) An effective and full response used examples to both describe and explain the nature of Fair Trade and the role of Fair Trade. All these elements needed to be present. The nature of Fair Trade can be interpreted as its character, answering the basic questions of who, what, where, when and how, etc. The role of Fair Trade should be interpreted as what it does. Many candidates had knowledge and understanding of the price mechanism between producers in LEDCs and consumers in MEDCs, such as a coffee company or supermarket, cutting out the middle man. Fewer included other aspects of its role such as sustainable production, skills training and gender empowerment. The best were developed in the context of examples of products and/or schemes. Some integrated these effectively; others added a paragraph or two about their example(s) after a general introduction to Fair Trade.

There persists some confusion between Fair Trade (see, for example, the website and publications of the Fairtrade Foundation) and trade between countries which is conducted unfairly. The pursuit of trade which is both free and fair (lower case ‘f’) is part of the work of the World Trade Organization (WTO). In the case of an incorrectly-directed response about free trade, Examiners used the principle of generic credit to reward anything which would apply to the correct subject of Fair Trade.

- (b) Knowledge and understanding of a typology of aid was secure. The challenges were to integrate detailed examples into the response; to recognise some positive impacts of aid; and to avoid confusing international aid with international debt and the debt crisis resulting from loans. This was referred to by some candidates as ‘financial aid’ which is not a syllabus category. One impressive way to structure a response was impact by impact, for example, saving lives, improving health provision and reducing mortality rates, creating dependency, and so on. This meant that examples of aid transfers of different types could be used to support and further the analysis and argument. These examples could be both by category (relief aid, development aid, tied aid) and by donor or agency (a country, supranational body, NGO, etc.). Some supported the analysis with up-to-date data and/or quotations from leaders and writers which enhanced the quality of the writing. Most candidates wrote their essays as ‘a developed list’ of types of aid. This could be difficult to manage in the time available and led to repetition about the impacts.

At the lower end of the spectrum of achievement aid could be confused with more general ‘help’, as in how countries help each other. Some of this is not aid in the technical sense. Lower-scoring responses tended to be overly negative without recognising any positive impacts of aid. Impacts in any dimension (economic, social, environmental and political) were valid, as was consideration of short term and longer term impacts. Some high quality assessment was seen about the wisdom of initial decision-making and project appraisal; cost/benefit; ‘the winners’ and ‘the losers’ from specific aid projects; and linking aid delivery to management and mismanagement.

Question 6

Closer attention to the wording of parts **(a)** and **(b)** and to the unfamiliar model in Fig. 2 would have improved the relevance of much writing.

- (a)** The full range of response quality was seen. The highest scoring were based on two or more recent types of tourism, describing what they are and suggesting reasons for their emergence and growth. These reasons could be broader reasons, such as growing boredom and disaffection in many MEDCs with traditional 'sun, sand and sea' holidays; or specific to the type, for example, the more adventurous, thrill-seeking tourists, who are often young adults, choosing adventure tourism, from white water rafting in Canada to crossing deserts.

The word 'recent' should be interpreted as no earlier than the dateline of the syllabus (1970) and could be within the last few years. Ecotourism was acceptable as a recent type, being named in the syllabus; mass tourism and cruises were not. Some acceptable types which could be investigated are niche tourism, health tourism, heritage tourism, and 'dark' tourism which involves locations associated with suffering and death. This could be, for example, the Somme battlefield and military cemeteries in France in their centenary year in 2016, places associated with the slave trade such as Elmina in Ghana, or Changi Prison in Singapore which was a prisoner-of-war camp during World War II. A large number of candidates misread or misinterpreted the question as being about the increase in tourism, rather than the increase in types of tourism. Some of the content could be made relevant but outcomes were limited by the lack of focus on what was recent and on types of tourism.

- (b)** To succeed in answering this part, candidates needed to deconstruct the question in order to identify its key words and to look very carefully at Fig. 2, comparing one with the other. On that basis, an essay could be planned. In terms of the assessment, there were two features of note. Firstly, the model has nothing on it about the environment. Some things can be inferred about the environment, such as the box labelled 'new hotels set up' which suggests that land may be deforested and landscaped with a change from a natural to a built environment, but there is nothing explicit within its framework. This is to be expected in that the multiplier effect is economic by definition.

The second thing that contributed to an effective assessment is that what is shown on Fig. 2 was only positive (which, again, the multiplier effect is). It does not show what some local tourist economies actually experience, such as late stages of the life cycle model of tourism, i.e. stagnation and decline, or the effects of events such as hurricanes, earthquakes, health scares, terrorist attacks, political instability, a loss of fashionability or bad media reports. It also does not show any of the negative economic impacts on a local tourist economy, such as loss of traditional livelihoods, poor wage levels in hotel employment, or the reality of leakage. This is when a large proportion of the profits are returned offshore to the foreign-owned business such as a travel agent or hotel chain.

Each element of this assessment needed to be supported through the use of examples. These examples provided the evidence needed to reinforce the analysis. The use of real world content also allowed the development of the responses, progressing the idea of the (limited) usefulness of the model in Fig. 2. Some candidates could have saved time by a more careful and disciplined approach to the question. Material about the national economy and about the local society was not relevant. Those who included Doxey's model, which is about social impacts, needed to be more careful in considering relevance and applicability.

Economic transition

Question 7

The concepts of the new international division of labour (NIDL) in **(a)** and newly industrialised countries (NICs) in **(b)** were largely secure.

- (a) (i)** A full explanation of the meaning of the term involved explaining each of the three key elements (new, international, division of labour). Many candidates actually explained global shift and manufacturers moving operations to different parts of the world to save costs and maximise profits, rather than NIDL, one of the outcomes of that shift. Most explanations only touched on the idea of what the division of labour means, usually focussing on manufacturing and assembly moving to LEDCs. Some omitted this element entirely and did not mention jobs.
- (ii)** This required own input and some application of knowledge and understanding. Two approaches could be taken to 'a national economy'. It was valid to consider one economy, either by type, for example an MEDC, or a named located economy such as Vietnam. The other approach was to consider different national economies and how each is disadvantaged, for example taking an LEDC and then an MEDC. An LEDC may be disadvantaged in a number of ways including the manner in which TNCs operate, such as a 'race to the bottom' on wages, working conditions and environmental impacts, and the tendency to pull out and relocate into an even cheaper location. An MEDC may be disadvantaged in a number of ways including factory closures, job losses, the reverse multiplier effect and the triggering of the larger scale process of deindustrialisation.
- (b)** The most effective responses were case-based or examples-led and developed an evaluation about the relative importance of the factors covered, identifying one or more factors as the most significant. A less developed form of evaluation tended to comprise a developed list of factors often in separate paragraphs each beginning 'Another important factor is ...'. At a lower level still, candidates wrote out what they had learned about NICs leaving the Examiner, largely, to pick out and/or identify factors within a narrative of what happened to country X. This was less successful than even a basic account which named factors simply such as raw materials and education. Other distinguishing features of higher level responses included explicit attention to both 'emergence' and 'growth' periods in the NICs' development, as given in the part-question's wording; a sense of the diversity of NICs; and differentiation between distinctive factors in specific NICs and factors that applied more generally, such as the key role of government.

Question 8

This question combined the interpretation of an unfamiliar resource, Fig. 3A, with an appraisal of HDI in **(a)** and a classic question about the creation of regional disparities in **(b)**.

- (a) (i)** Many responses would have been enhanced by a stronger grasp of the meaning of the term *pattern*, in this case a spatial pattern, and more developed skills in identifying and expressing the pattern on the map in Fig. 3A. For example, a central band of HDI 0.75 extended north-south, comprising two cities and Midvaal. Peripheral values to the west and east were lower, namely Merafong City (0.68) and Lesedi (0.69) with Westonaria in the Midwest having the same value. Two inadequate approaches were seen. One simply listed or ranked each district with its value; the other only looked at the lowest and highest values without considering location. Of the 4 marks available, one mark was reserved for the use of the linear scale (which was very rare) or compass points. Rather than referring to 'on the left' and 'the top right-hand side', the correct use of west and north-east was expected.
- (ii)** The full spectrum of achievement was seen. The very best considered usefulness by looking at what HDI does and does not do. For example, HDI is a composite measure, so is regarded as better than a single criterion measure. However, it does not differentiate on the basis of gender or between highly unequal societies where there are elites and large populations of low socio-economic standing. Even Amartya Sen, one of the HDI's two developers, has termed it "a crude measure". Many candidates evaded the question of the actual usefulness of the HDI by promoting the use of an alternative such as the Gini coefficient with little or no reference to the HDI itself. One Examiner commented that "some candidates did not appear to notice that a definition of HDI was given below the key." The weakest responses simply rewrote that text under the key on Fig. 3A, for which there was no reward.

(b) One of the routes to an effective and high quality response was good organisation in order to be able to handle and present what was often a large amount of information effectively in the time available, usually towards the end of the examination. Many candidates divided their essay into physical factors, such as resource endowment and accessibility, and human factors, such as colonial history, investment and the operation of spread and backwash effects. This was a good approach. Comprehensive responses were not required but an overview was. This meant that considering the creation of regional disparities without considering any physical factors was an inadequate basis, even if the evaluation given was that a human factor was the most important.

A number of different countries were used well including Brazil, China, Italy, Malaysia and the UK. The best gave an impression of the whole country, even if this was in the background or the context for the response, rather than simply focussing on the core region and one peripheral region. Many responses could have been enhanced with the integration of more evidence, such as names and locations, dates, statistics or views and by identification of what the regional disparities are. There was some richly-supported, evidence-based analysis which contained quotations from writers, leaders or politicians and the presentation of the candidates' own viewpoints and opinions in a considered and well judged manner.

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Key messages

- Deconstruct a question into its constituent elements and address each one such that the actual question set is answered.
- Supporting a response with reference to appropriate examples is important, even where such examples are not specifically requested by the question. Examples should have details enabling the support to move upwards in quality from generic to specific.
- Parts **(b)** require candidates to demonstrate an ability to provide a form of evaluation with commands such as: 'assess', 'how far do you agree' or simply 'evaluate'. For this skill candidates need to back up view(s) expressed with analysis supported by examples and evidence. Descriptive responses and simple unsupported evaluative statements of the 'I agree that ...' type remain in Level 1.

General comments

Candidates appear to be better prepared for a part **(b)** response where the question focuses on one named example or case study. However, case study examples are not always well prepared as shown by **Question 1**. Part **(b)** responses of a more general nature were required for 5/8 questions. Centres should bear this in mind when preparing candidates. The majority of the candidates provided two full responses in satisfactory to good English. Many candidates across the ability range provided well organised and carefully structured responses. These suggested effective training in examination technique and essay writing. There were very few rubric errors.

A range of abilities were displayed with a close correlation in terms of performance on each question attempted. This varied with some excellent geography showing a global perspective and 'big picture' approach; skills in data response and resource interpretation; highly conceptual thought; effective extended writing; ability to analyse and provide evidence-based arguments and, in **(b)**, an evaluative approach, weighing and judging. On the other hand, low down the mark range, some demonstrated a lack of subject background with weak, anecdotal, faulty, mistaken and overly personal or opinionated responses, or the very brief and/or those with part **(b)** responses which were generalised and lacking examples, detail or support evidence. In the middle range, candidates often displayed a narrative approach with low skills in selection, direction and application of recalled knowledge in terms of the actual question set.

The resources in the insert represent different ways of providing stimulus materials, with Figs. 1, 2 and 4 for data skills exercises, whilst Fig. 3 was provided as a general stimulus for the question. Figs. 1 and 2 were generally well interpreted, with an encouraging sign that candidates were able to describe patterns for both types of water scarcity projections in Fig. 2. For the core-periphery model – Fig. 4 for **Question 8** – there was some evidence that candidates did not carefully use the given model but preferred to use one from memory, which displayed flows that were different to those in Fig. 4. Teachers are encouraged to use a wide variety of resources during the course, both from past papers and from other sources, to develop skills of close observation, interpretation, suggesting explanation and critical appreciation.

Most part **(b)** questions and several part **(a)** questions, especially 5**(a)**, allowed candidates to use several useful examples to illustrate their answers. Interpretation of questions was not always thorough, however. There were no rubric errors.

Comments on specific questions

Production, location and change

Question 1

- (a) Responses were most effective when candidates had read and noted the stem (one country context) and for each part of the question.
- (i) The best responses were specific to one country, providing evidence for why agricultural change was needed with reasons including loss of markets, problems of land ownership, the need to increase yields, increased food demand or unproductive traditional agricultural production. They also produced several strands of explanation rather than one. Some responses, however, described the changes in part (i) and struggled to identify clear reasons or exemplar specifics.
- (ii) The best responses clearly described two changes for the country identified in (a)(ii). However, many responses lost specificity to the country context and the descriptions could have applied anywhere and many were undisciplined about 'two' changes and gave more (even if arranged in two paragraphs).
- (b) The best responses understood the concepts of intensifying agriculture and extending cultivation, and looked carefully at both with the help of examples such as the Green Revolution in India and tropical rainforest clearance in Asia or Amazonia. They were also able to focus on problems by referring to valid examples. Less successful responses muddled the concepts in the question with case studies of intensive cultivation and extensive cultivation, leading to tangential and static responses, when a recognition of the dynamism of the processes was sought. Some took an unsuccessful approach of describing advantages (not relevant) and disadvantages of the two processes, and sometimes showed a lack of understanding by straying into describing methods of farming.

Question 2

Some candidates were attracted by part (a) of the question but were unprepared for the demands of part (b).

- (a) (i) The best responses linked the three variables at least once and noted that being concerned with a business was more lucrative than not working for or running a business. They referred more to the top (employers) and the bottom (unpaid family workers). Some took an unsuccessful approach thinking that 'main features' meant the form of the diagram rather than its content or provided explanation which was not required.
- (ii) A variety of reasons could be offered related to the sector itself or to individual choice (or lack of) including lack of regulation and taxation by the government, a culture of exchange, family ties, poverty, lack of skills related to lack of education and literacy issues, the mismatch between numbers of people seeking work and formal jobs available, the need for survival and the opportunity for entrepreneurs to flourish and find a way to develop a business. The best responses noted that the context was 'in LEDCs' and illustrated the response with specific examples relating to countries or individuals such as examples local within Asia and the well known Jua Kali, Kenya. They also remained within the context of the question as set out in the stem and within the parameters of the option: employment in the informal sector of manufacturing and services.
- (b) The key to a successful response was recognition of the fact that the question was about 'recent changes in the location of manufacturing and related service industry'. These might have included changes such as increasing coastal locations or development of enterprise zones.

Environmental management

Question 3

In both parts it was important to explain rather than just mention the advantages or disadvantages. For example, to go beyond saying that burning oil in power stations or in vehicles causes air pollution and develop the response with reference to issues such as acid rain, health impacts, or connections with global warming.

- (a) (i) Better responses were explained tightly and supported with examples in greater detail than name. A surprising number omitted resource depletion, but some knew about peak oil and offered a timespan.
- (ii) Understanding of biofuels varies considerably and some candidates made sweeping statements such as that they caused no pollution and were in themselves renewable. Better responses knew about mixing biofuels with conventional fuels and could explain about the sustainability aspect of biofuels. The weakest were narrow, e.g. only dung; faulty, e.g. fuelwood for cooking; or the simple opposites of what had been written in (i).
- (b) Some candidates still confuse electrical energy strategy with a scheme such as the Three Gorges Dam or select only one aspect from a country such as 'wind in Germany' or 'geothermal in Kenya'. Successful responses demonstrated broader knowledge than simply the principal energy contributor in a country and were often distinguished by being able to consider wider aspects such as supply to more remote regions, the progress towards rural electrification or issues such as energy conservation. They also noted and differentiated between the national scale and global scale effectively and considered several aspects of sustainability such as energy security, longevity and environmental protection.

Since the question mentions 'strategy' rather than just production, some indication of planned change was needed, demonstrating that a strategy is a plan of action designed to achieve a long-term or overall aim. Weaker responses focused on production instead of a strategy or details of one scheme instead of an overall policy. It was often left unsaid as to what they meant by sustainability. The use and quoting of data about percentages of supply from different sources was a problem for this question. If candidates cannot remember or recall under pressure in the examination, it is far better to make qualifying statements such as 'the majority comes from...' or 'about $\frac{3}{4}$ is from...' than to make up figures which are inaccurate. This is particularly evident when candidates are considering policy objectives or the sources which are less important currently.

Question 4

- (a) Candidates often demonstrated reasonable geographical knowledge in (a) but it was important to describe the pattern of each type of water scarcity rather than just produce a list of countries. Better responses used the names of continents and some countries, the tropics and equator, compass points and expressed pattern in different ways, e.g. band, belt, scattered, extensive, isolated, etc. Suggested reasons often included both physical and human points, correctly identifying and naming areas with a lack of precipitation or of high precipitation and suggesting reasons linked to the type of scarcity.

There was some very good writing about water usage in MEDCs and the link between human activities and scarcity. Weaker responses had no sense of pattern and tended to pick out isolated countries they could name. Their reasons were based heavily on the sentences below the map, with, for instance, mistaken statements that access to water was thought of as purely a case of not being able to buy water rather than a problem of infrastructure provision. Some potentially good responses made no reference at all to physical factors such as precipitation and drought.

- (b) Successful answers focused on a suitable environment and details of attempts to improve one located degraded environment. These included parts of Borneo, Namibian conservancies, parts of the Sahel and aspects of an Asian city. Those taking an urban environment, such as Kibera or London Docklands, needed to ensure that they gave enough attention to the physical environment, not just improving the lives of its inhabitants (more Paper 1). Some very good work, which was in Level 3, included data, success criteria and a keen sense of constraints and obstacles, often human nature from the mindsets and ignorance of the residents to the corruption and profiteering of officials.

Many candidates spent too long writing about causes without linking them to attempts to put things right and were slow to address the question set. There were some confused ideas such as there being forests in the Sahel or slash and burn methods being used by commercial farmers.

Global interdependence

Question 5

- (a) The Fair Trade movement is well understood by some with the best answers able to refer to specific characteristics of Fair Trade projects as well as their impact. How it works involved most in recognition of a better deal through cutting out the middleman and of the guaranteed minimum price. A few knew about certification and the logo and the place that the products have in the minds of consumers in MEDCs. How it improves lives was generally done weakly apart from more income and so higher standard of living. Some knew about the Fair Trade premium and could link this to improving the lives of producers in LEDCs, taking this to community level (schools, clinics); gender empowerment; a producer 'voice'; training and sustainable agricultural practices. Some use of examples enhanced responses. There are still some candidates who confuse Fair Trade and the WTO, whilst other candidates either had an incomplete knowledge of the scheme or confused it with general fair trade ideas. Criticisms of the scheme were not relevant.
- (b) The better answers were well focused on lenders and borrowers and sometimes on other causes of debt such as unfair trade practices or global financial difficulties. They were able to target responsibility very clearly and support their statements with appropriate examples. One fruitful approach was to consider what lenders and borrowers each did, set in the context of post-independence borrowing and the oil crisis. Many were rightly critical of corruption, mismanagement, wrong decisions about development and wrote well about the impact of hazards, political crises and shifts in the global economy, often seeing these as 'other factors' and so part of the overall assessment. Weaker responses had a limited background to causes of debt and struggled to address the idea of responsibility. Some tried to answer a question on aid or debt relief.

Question 6

- (a) (i) This question demanded familiar knowledge, although it was necessary to apply it carefully or better still to have a definition based on carrying capacity as it applies to tourism, such as the one provided by the World Tourism Organization. The definition needed to be clearly linked to numbers of tourists and specifically the maximum number before irreversible damage is done. Most had something about people and something about resources, but few had tourists or visitors or maximum number. The idea of negative impact on the destination distinguished better responses. A few candidates mentioned different types of destruction of the environment, including psychological impact on locals and tourists. Very few were able to link carrying capacity to the concept of a decline in visitor satisfaction, which would provide a link to part (ii).
- (ii) The best answers related stages of the life cycle model (usually early stages, stagnation and possibly decline or rejuvenation) to factors influencing the carrying capacity, with or without a named location. However, some displayed faulty recall of the model with unlabelled axes and stages missing or given different names, writing only about the number of visitors.
- (b) Key message 1 was important for this question, since some candidates insisted on including economic impacts which were not part of the question. The benefits or problems discussed were sometimes mistakenly directed to the country as a whole despite the fact the question specified the local area. Economic points were only relevant if they linked to social (for example, unemployment) or environment (such as investments in protecting natural areas).

Stronger responses targeted environmental and socio-cultural impacts in a well understood tourist area, bringing in models such as Doxey and using data as supporting evidence. Evaluations considered positive and negative results and may have provided conclusions about the importance of some of these and the extent to which they affect the success of the area. Relevant specifics such as named parks, specific people and cultural aspects affected, strengthened the response.

Candidates frequently only see the positive aspects of ecotourism which limits the ability to evaluate its impacts. There are negative impacts to ecotourism such as the occasional environmental problem or the impact of local transport in getting to the eco resort. Weak answers often produced sweeping comments about different impacts without obvious specifics from the chosen example.

Economic transition

Question 7

- (a) (i) Most candidates were clear about the nature of the primary sector as a producer or collector of natural resources and about the role as provider of raw materials used by other sectors of the economy. Better responses were developed by considering variations in the size and importance of the sector as development progresses or by contrasting LEDC and MEDC economies supported with examples. Some responses further developed the role as supplier of capital for the development of other sectors of the economy. A few responses had a very narrow view, seeing the primary sector as agriculture only.
- (ii) Most candidates were aware that the quaternary sector is based on knowledge and research with its role as providing new designs and innovation in the development of products for the market. Better responses took this forward considering the investment aspect and giving examples of the role such as new production methods, cutting costs, business consulting and strategic financial services. The role in economic development was less well addressed, with most aware that the quaternary sector appears later in economic development, whilst some developed this to note that the sector ensures further expansion and generates higher returns from economic investment.
- (b) Candidates needed to understand both terms to answer this effectively. Sound responses stated the meaning and role of globalisation, especially in the form of global shift of industry. They provided up-to-date examples of links with deindustrialisation. The best provided an argument, usually from the UK or USA, often about global shift of manufacturing to Asia, and a counter-argument, providing other (contributory) reasons for deindustrialisation such as the development policies of countries in Asia looking for manufacturing-based growth, offering incentives, seeking FDI, domestic industrial problems, lack of innovation or trade agreements, etc. A few mentioned Clark-Fisher and the idea that sectoral shift over time is to be expected.

Weaker responses had little information or support on deindustrialisation and its effects, and only implied their understanding of globalisation. They were more likely to write about industrialisation in LEDCs and NICs, which, though of some relevance, usually meant that the focus of the question was incorrect. Answers were often more narrative in style than a well structured argument.

Question 8

- (a) The diagram was not familiar to all candidates, so they needed to pay close attention to Fig. 4 and where the arrows were, rather than work from the core-periphery concept or from knowledge of a model they had seen themselves. The better responses directed themselves to specific flows on the diagram and were well conceptualised in initial advantage, cumulative causation, spread effects and backwash effects. A few used an example effectively, e.g. Malaysia or Indonesia.
- (b) Responses to this question were varied with only a few well prepared for the topic. The weakest elements were the grasp of what wellbeing is or means and writing at the global scale. The latter scale aspect was successfully addressed by some by considering differences between nations. They were able to produce a real argument based on a balance between physical and human factors. For example, the idea that physical problems may be overcome or the development of resources being a human factor. Several recognised the importance of history and politics in the improvement of wellbeing. Candidates who struggled to produce a balanced account often focused on development rather than wellbeing, so that economy dominated and social wellbeing was often ignored or they considered regional scale within one country such as within physically extensive countries such as China or Brazil. Opinions were often stated rather than discussed and there was little or no support from evidence such as diet, life expectancy, GNI or HDI. Sweeping comments implying that all LEDCs were the same regarding structure of the economy, level of education and health etc., led to simple arguments.

GEOGRAPHY

Paper 9696/33
Advanced Human Options

Key messages

- Select the two questions to be answered carefully so as to avoid a false start and wasting time.
- Read the question carefully and plan a response which satisfies every element.
- Integrate examples into responses even where they are not asked for in the question (see cover of the question paper).

General comments

The entry was small and the questions attempted were restricted by Options taught and personal preference of the small number of candidates. The full spectrum of achievement was represented with some excellent geography showing detailed knowledge, secure conceptual understanding and the ability to weigh evidence, analyse, evaluate and present a sustained argument and assessment. This was notable in responses to **Question 6** about tourism.

Whilst it is difficult to generalise from a small and fragmented entry, as responses of all qualities have not been seen to all questions, it is possible to identify three ways in which answer quality could be enhanced. Firstly, by the integration of examples, especially in responses to parts **(a)**. For example, in **Question 2(a)** general responses without an example or examples were restricted to a maximum of 4/5 marks in both **(i)** and **(ii)**. In **Question 3(a)**, although the wording of the question was 'With reference to examples ...', only one candidate tried to use any. Secondly, planning responses pays off. Not only is it reassuring to candidates to have a plan to follow, especially when they are feeling exam pressure, but good planning helps to achieve higher awards with structure or organisation often appearing in the **Level 3** descriptors, e.g. for **Questions 1** and **4**. It also helps in managing large amounts of factual knowledge by facilitating its selection, application and direction to the question set. Thirdly, candidates should read the question carefully (at least twice) and work to ensure that the focus of their response really is the focus of the question. For example, one response to **Question 5(a)(i)**, 'Describe the pattern of trade for Europe', was global and covered all the continents in a superficial way only mentioning Europe once.

Candidates interpreted all resources appropriately. The one term that was insecure was 'global inequalities in trade' in **Question 5**. This was interpreted to be about a country's trade balance and at the wrong scale as about regional imbalances, for example within China.

Time seemed to be managed effectively. Some scripts showed evidence of false starts crossed out (see first key message above) and some produced very brief responses to parts **(b)**, for example a paragraph, when an essay is expected.

Comments on specific questions

Production, location and change

Question 1

- (a)** The concept of land tenure was not fully secure and so some candidates only described and explained using Fig. 1. If done well, this could achieve max. 6/10 marks. An ideal response integrated own knowledge of what secure tenure means for agricultural production, for example in relation to longer term working and greater confidence in taking risks. The best response conveyed a good sense of the interconnectedness of these benefits and of a chain-like ongoing cycle of increased agricultural production stemming from secure tenure.

- (b) A number of countries were taken as the chosen context. The best were at the correct scale and had country detail, e.g. dates, locations, crops, named attempts, statistics. A narrative approach characterised Level 2 awards with greater understanding of management and a fully evaluative approach was characteristic of Level 3.

Question 2

- (a) Knowledge of EPZs was secure for both locational advantages in (i) and negative effects of employment in (ii). Advantages included tax breaks, other financial incentives, access to ports and airports, infrastructure (transport, water, power, waste management), a skilled labour pool and security. Concepts of functional linkages and agglomeration economies were used effectively. All responses would have been enhanced by the simple use of one or more examples.
- (b) Understanding of what industrial policy is and what 'issues of industrial change' are was sound. A clearer focus on solving these issues, rather than general 'success', was needed in some essays. As with **Question 1(b)**, there was a tendency to write a narrative about industrial change rather than provide an evaluation focused on the key words in this part-question.

Environmental management

Question 3

- (a) The concepts of energy demand and energy supply were secure and level of development was understood. Response quality was basic and only one candidate tried to use examples as required by the wording of the question. Key ideas were about how economic transition changes demand from manufacturing and service sectors; how energy demand increases as standard of living increases; and how both demand and supply are influenced by technology. The idea of a changing energy mix and the use of more types of energy, both renewable and non-renewable, as countries develop, could have been explored.
- (b) Different countries were taken as the context; of these, China performed the best. Africa is a continent rather than a country. If two countries were taken, each was marked separately and the candidate credited with the better mark. Issues might include rapidly increasing demand, distance and remoteness, concerns about the environment and (un)sustainability, cost and energy security.

Question 4

There were too few attempts in the entry to generalise about candidate performance.

- (a) A full response to (i) required data support from Fig. 2. In (ii), considering the population-resource relationship using overpopulation and underpopulation was a sound approach.
- (b) It was anticipated that candidates would consider economic factors as causes of environmental degradation. How economic factors help to overcome environmental degradation by providing funding was also accepted.

Global interdependence

Question 5

There were too few attempts in the entry to generalise. See **General comments** for an observation about (a)(i).

Question 6

- (a) A number of different tourist areas or resorts were chosen. Of these, the Cayman Islands performed the best in terms of detailed and contemporary evidence and an aware and realistic explanation. Some responses were impressively conceptual, making effective links to the tourism multiplier, to Doxey and/or to the life cycle model of tourism.
- (b) The full range of answer quality was seen, from general responses in Level 1 which offered a personal opinion about tourism's effects without support, to superb essays which were multi-dimensional (economic, social, environmental) weighing and judging diverse and detailed evidence from named located contexts with high skills.

Economic transition

There were no attempts at **Questions 7 and 8**.