

CARIBBEAN EXAMINATIONS COUNCIL

**REPORT ON CANDIDATES' WORK IN THE
CARIBBEAN ADVANCED PROFICIENCY EXAMINATIONS**

MAY/JUNE 2003

GEOGRAPHY

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CARIBBEAN ADVANCED PROFICIENCY EXAMINATION

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GENERAL COMMENTS

UNIT I

Paper 1

Four hundred and fifty-two candidates sat papers in Unit 1 and this represented an increase of about 52 per cent over 2002. Almost 84 per cent achieved acceptable grades, Grades I to V.

MODULE 1 - Population and Settlement

Paper 1 comprised nine structured questions with three questions drawn from each of three modules. All questions were compulsory.

Question 1

This question comprised two parts. In Part (a), candidates were tested on their knowledge of the Malthusian view of the relationship between population growth and resources. The responses were quite good. There was a tendency, however, to attribute to Malthus some of the modern views of the relationships.

In Part (b), they were asked to explain the manner in which the USA used technology and trade to support its population. The responses were fair.

Question 2

The stimulus was a population pyramid with the broad base that is typical of developing countries. The calculation of the percentage in the 0-19 age groups was accurate for the most part. However, candidates must be made aware of the fact that many countries in the developing world are no longer in the first stage. They should be made aware of those countries within the Caribbean region whose structure no longer shows the concavity that is typical of poor developing countries. In Part (c), they were asked for the effects of a large proportion of the young on economic development. The responses were good.

Question 3

Responses to this question showed that candidates were not familiar with the term 'urban deprivation'. Very few candidates were able to give a clear definition of urban morphology. In Part (b), where candidates were given a model of urban morphology and asked for the name of the model (Burgess' concentric ring), few candidates were able to identify and to state characteristics of one of the areas numbered. Many could not name the model. There was often no indication of the area identified and the characteristics of the zone were very vague.

MODULE 2 - Hydrological, Fluvial, Coastal and Limestone Environments

Question 4

The diagram represented the storm hydrographs for three drainage basins of different sizes and candidates were asked to match the diagrams to the sizes given in Part (a). In general, the performance on this section was poor. Similarly in Part (b) where the usefulness of the hydrograph was questioned, candidates failed to distinguish between utility and an explanation of what the diagrams represented. They were unable to say that they were useful for prediction and planning. In Part (c), candidates were asked for reasons why meanders change their location over time. Most wrote about the formation of ox-bow lakes. Lateral and downstream migration were hardly mentioned.

Question 5

The stimulus was a diagram showing the cross-section of a river and in Part (a), candidates were asked to calculate the wetted perimeter and hydraulic radius. Most candidates performed well on this section and errors were mainly mathematical. Candidates are urged to be more careful. Many confused the terms competence and capacity of rivers and defined the concepts in terms of the volume of water rather than particle size and load. In Part (c), they were asked to outline the role of a biological factor in mechanical and chemical weathering. They wrote of the action of roots and burrowing animals but seemed less familiar with the action of organic acids. The repeated reference to climate as a biological factor is a cause for some concern.

Question 6

Few candidates understood the concept of drainage density but those who did performed extremely well. Some candidates referred to the length of the streams without relating this to the area. Others guessed and were way off the mark. In the definitions of drainage pattern, in Part (a) (ii), it was clear that the candidates had an idea of what the term meant. However, they were unable to put the concept into words. Part (b) was well done as most candidates were able to (i) draw diagrams to show the difference in drainage density between clays and sands (ii) and to explain why those differences develop. In Part (c), candidates confused alluvial fans with deltas and in general could not describe the conditions under which this feature developed.

MODULE 3 - Natural Events and Hazards

Question 7

In this question, candidates were given conditions which existed in Britain over a one-year period and in Part (a)(i) were asked to name the hazard described. It was difficult to understand why many candidates felt that conditions conducive to flooding existed until it was realized that they probably read no more than the first line. It is critical that candidates read the entire question before attempting an answer.

Question 8

In this question, there was a diagram of a subduction zone and in Part (d), the candidates were asked to explain why the continental crust did not subduct. Many performed creditably but there was some confusion over which of continental and oceanic crusts was lighter or denser. At this level, one would expect the answer to include the composition of the crusts as being responsible for these qualities (silica and aluminum or silica, and magnesium). Part (b) was well done but in Part (c), candidates experienced difficulty matching features of plate tectonics to processes.

Question 9

The performance on this question was weak. The question related to the characteristics of pyroclastic flow. Candidates were not clear on the hazards resulting from volcanic eruptions and included several different types of hazards under the heading of pyroclastic flow. In Part (b), it seemed that candidates had not studied the material on hazard responses and gave the type of lay interpretation that is not expected of geography candidates. The question asked for the reasons why individuals would accept the risk of living in an area that was prone to earthquake hazards. This required a response to hazard risk for which much material is available.

PAPER 2

MODULES 1, 2, & 3

Question 1

This was the compulsory map-reading question and the map extract was one of Eastern Barbados on a scale of 1:10,000.

In Part (a) of the question, candidates were required to describe the relief of the area shown on the map extract.

One of the earliest lessons on map reading comprises feature recognition. Contours tell a tale and candidates are shown how to identify features on the basis of the shape and spacing of the contours together with the contour intervals. Later, those features are put together on a map and their disposition gives indication of the relief of the area. Therefore, in a description of the relief shown on a map extract, one does not expect, at this level, the identification of individual features - a hill in the north, a hill in the south, a plain in the middle. One expects a broad picture with individual features being given to highlight the point made. Too many candidates interpreted a description of relief as identification of features.

In Part (b), candidates were asked to explain how relief influenced the form as well as the location of settlements. A very large proportion wrote of the association between roads and settlement without linking the road network to the relief. Some saw road and settlements following valleys instead of the crest of ridges.

In general, Part (c) was well done. Candidates had a good grasp of stream order and bifurcation ratio although many did not know the significance of the bifurcation ratio.

MODULE 1 - Population and Settlement

Question 2

This question examined common concepts in population geography and was well done. At this level, it should be specified that the denominator in crude birth rate and death rate is the mid-year population. Here too, it is clear that candidates are not aware of demographic trends in countries such as Singapore. The assumption is that all tropical countries have high fertility rates, but except for the examples, candidates wrote knowledgeably on the factors affecting fertility rates.

Candidates needed more practice in interpreting tables. They experienced difficulties describing the pattern of ageing displayed on a table. Some tried to explain the figures for individual countries rather than overall patterns. However, good responses were obtained for Part (d) where they were required to describe the problems of an ageing population.

Question 3

Candidates clearly did not understand the term or the process of urbanization. In Part (a), they were required to examine five differences between the process in developed and developing countries, for example, rate, direction of growth, stimulus. The few candidates who understood the process produced good responses but the majority performed poorly.

Part (b)(i), relating to the problems of inner city areas, was well done. The same was true for Part (b) (ii) which dealt with measures to improve inner city areas. However, the responses could have been strengthened by references to specific cities.

MODULE 2 - Hydrological, Fluvial Coastal and Limestone Environments

Question 4

This question was based on the fluvial system and was poorly answered. In Part (a), the diagrams of the long profile was fairly good. Although few candidates identified base level, many put too much effort into the drawing of features of the bed such as, potholes and boulders. The performance on Part (b) was weak. Candidates were asked to explain how the long profile may be influenced by downstream changes in discharge and load. Terms, such as profile, discharge and load, were often misunderstood. Some reversed the emphasis and discussed the influence of the long profile on load and discharge. Others simply discussed the work of rivers. In Part (c), most candidates were able to name factors that influenced the gradient of valley sides. Unfortunately, a minority was able to describe them.

Question 5

In Part (a), most candidates were able to distinguish between constructive and destructive waves. But, for the most part, diagrams were poorly drawn and some candidates explained transport of material on the beach in terms of longshore drift rather than forward movement (by swash) and backward movement (backwash) in relation to types of waves. In Part (b), candidates were required to describe the processes that are important in the transport of beach material. Some described all the processes along the coast (erosion, transportation,

deposition) and the resulting features - cliffs, caves, spits. Although the process of longshore drift was identified, the explanations were inadequate. Swash was often confused with backwash. A small minority mentioned transport by rivers.

MODULE 3 - Natural Events and Hazards

Question 6

Candidates were required to contrast the tectonic processes that result in the formation of volcanic island arc with those that result in fold mountains.

Candidates had a better understanding of island arc processes than those forming fold mountains. To some extent this reflects the emphasis of the texts in use. There were many good responses to Part (b) in which candidates were required to give an explanation of transform faults. Several responses were accompanied by well-drawn diagrams. However, in Part (c), where candidates were asked for specific information on earthquakes occurring at transform faults, they faltered.

Question 7

This question on seismic damage revealed many misunderstandings of basic terms, such as intensity, magnitude, focus, epicenter, that are necessary for an understanding of earthquakes and the damage caused. Candidates were presented with a table showing the severity of damage to buildings caused by an earthquake in Japan and asked for factors which could account for the NATURE of the damage. Many ignored the fact that the questions required responses that were supposed to deal with the nature of the damage, for example, providing an explanation why some buildings were fully destroyed while others were partially destroyed. Some candidates confused the type of damage caused by volcanoes with that caused by earthquakes.

UNIT 2

PAPER 01

Two hundred and sixty-five candidates sat papers in Unit 2, an increase of about 27 per cent over 2002. Ninety-one per cent achieved acceptable grades, Grades I to V.

MODULE 1 - Climate, Vegetation and Soils

Question 1

Candidates confused 'water balance' with water table and the hydrological cycle and while most could explain the occurrence of fog, there were those who confused it with smog.

Question 2

In Part (a), candidates were asked to identify two weather systems. There were careless mistakes, for example, naming warm instead of cold front and hurricane instead of tropical depression when there was no indication of wind speed.

In Part (b), candidates were asked to name four characteristics of the weather associated with the passage of the cold front. The most common error was the naming of the element of weather without a description of the change. The expected response was a FALL in temperature. The same errors appeared in responses to Part (c) in which changes associated with the passage of the tropical depression were required.

Question 3

In Part (a), many candidates saw soil in terms of weathered bedrock. Soil is more than regolith and the two should not be used interchangeably. Neither is 'the upper layer of the earth' acceptable.

In Part (b), candidates were supposed to complete a diagram showing soil forming factors. This was fairly well done. Some made a distinction between soil organisms and vegetation rather than recognizing a biotic factor.

In Part (c), candidates were asked to outline three ways in which man has caused soil degradation. In questions such as these, candidates are advised to describe three distinct ways rather than to describe three farming practices. In addition, too many candidates ignored the request for 'specific examples'.

MODULE 2 - Economic Activities

Question 4

Candidates were given Thünen's model of agricultural land use and asked to give labels to the type of agricultural activity. The responses showed that the majority of the candidates did not know the model and in guessing, they were influenced by present day distribution of activities. Therefore, in their responses, forest occupied the outermost limit. While candidates performed weakly on the diagram, most of them gave reasonably good response to the question on the limiting assumptions of the model. However, some confused the concept of a 'limiting assumption' with a limitation.

Question 5

Candidates were required to describe one way in which the location of the iron and steel industry in a named developed country has changed over time.

Most candidates had a fair knowledge of traditional location factors, such as, raw material. However, they appeared unfamiliar with modern locational factors. They gave reasons for the change in location but did not comment on the new locations.

In Part (b), they were asked for the role of government in the location of industry. Instead, they discussed the role of government in encouraging industries.

Question 6

This question dealt with Smith's model. The responses were quite weak and this comment holds true for the performance on all questions involving models. Few candidates knew what isodapanes were. Candidates knew that they were lines but seemed not be able to go beyond this. They had difficulty with the labelling of Smith's space-cost curve and this indicates a failure to grasp the fundamentals of the concept.

MODULE 3 - Natural Events and Hazards

Question 7

The responses in this module were weak. In some cases, simple and straight forward questions were not even attempted. A definition of a national region and the description of two types of national regions should not have posed problems to candidates who were prepared. Candidates who knew the subject matter were able to gain full marks. For most candidates, all the marks were gained on Part (c) which related to the advantages enjoyed by international regions. Candidates correctly identified trade and the ability to make arrangements on behalf of a larger group as advantages.

Question 8

The basic problem seemed to be a lack of knowledge. Those who understood the concept of a poverty line had no difficulty. On the whole, the performance on the question was weak. The majority of candidates did not understand the difference between absolute and relative poverty and were very imaginative in their responses. About ten per cent of the candidates were able to state that the cost of living must be considered in arriving at purchasing power parity.

Question 9

Responses to Question 9 were better than those in Questions 7 and 8. However, most were unfamiliar with the concept of spatial dualism. Part (b), relating to measures for reducing rural-urban disparities, was well done.

In Part (c), candidates were asked for economic and political measures to reduce disparities among CARICOM member countries. They performed well on economic measures but were hard pressed to find political measures.

UNIT 2
PAPER 2

MODULES 1, 2 & 3

Question 1

This was the compulsory map reading question and was based on the map extract of Barbados on a scale of 1:10000.

Part (a) of this question assessed the candidates' knowledge of the techniques of vegetation sampling, specifically along a belt transect. The vast majority of the candidates were unable to perform the task satisfactorily. But most of them obtained the mark awarded for the identification of a factor that could cause local variations in the vegetation although they were not always able to explain the cause or how the factor operated to bring about variations.

In Part (b), candidates were asked to describe the map evidence for differences in development. However, they gave reasons for the differences and there was not enough use of map evidence. Also, in Part (c), they did not describe map evidence for the possibility of economic linkages but identified areas of economic activity.

MODULE 1 - Climate, Vegetation and Soils

Question 2

Candidates were required to discuss the statement 'Mountains make their own climate' with respect to given headings. From the responses, it would appear that candidates had more exposure to urban than mountain microclimates since many of them gave responses specific to urban areas. Perhaps not unexpectedly, there was the confusion of anabatic and katabatic winds. More work seems to be needed on environmental lapse rates.

In Part (b), a few candidates seemed to have missed the significance of the 5 marks allocated to this question and did not realize that a one-line definition of the ITCZ was inadequate. Candidates were expected to refer to the fact that the ITCZ is migratory and that it affects conditions in the Caribbean. However, some of the candidates saw the significance of the 5 marks allocated and were able to perform quite well on this section.

Similarly, some very good responses were received for the section on the weather associated with the zone. A few candidates wrote of the weather conditions associated with the passage of a cold front.

Question 3

This type of question on vegetation characteristics is popular at the CSEC level but greater depth is expected at the level of CAPE. Unfortunately, many of the problems encountered at the CSEC level were evident. Too many candidates could not accurately shade areas of specific vegetation types on a world map. Sometimes, the names of countries were given instead of those of specific areas. These problems can only be overcome with practice in map work.

There is one problem that is so frequently encountered that a special effort should be made to correct it. Often, candidates do not appear to read the entire question and therefore they may be unaware that a question asking for a description is followed by one requesting an explanation. When descriptions are called for, candidates are not rewarded for anything else. Of course, this means that they must be clear on what is meant by 'describe' and 'explain'. In this instance, there was no doubt that most candidates were quite knowledgeable about the characteristics of tropical savannah grasslands and the ecosystem dynamics but, they did not perform as well as they should have when asked to link the characteristics to climatic conditions.

In Part (c), candidates gave very good descriptions of the types of activities that could be harmful but often failed to demonstrate the effect on the vegetation such as a reduction in biodiversity or the suppressing of dominant species. Here too, many candidates failed to give the specific examples required.

MODULE 2 - Economy Activity

Question 4

Question 4 was one of the optional questions and in Part (a), candidates were asked to discuss the threats posed by agricultural activity. They wrote in very general terms about soil erosion and pollution problems and many wrote very competently on the subject. However, for full credit, they needed to state a farming practice in a specific area, the threat posed and to elaborate on the effect on the environment.

In Part (b), they were required to describe measures taken to counter the threats and, in general, their performance was satisfactory.

Question 5

There was a very low response rate to the question.

In Part (a), candidates were asked to draw a diagram of an industrial region in a developed country and to discuss the role of industrial linkages in the growth of the region. A few candidates chose incorrect examples of major regions (Trinidad and Tobago) but on the whole, those who attempted this question performed satisfactorily.

Question 6

In this question, candidates were asked to examine the influence of transnational trading blocs and trade organizations on commercial agriculture in the Caribbean. In general, the responses were poor. Candidates did not appreciate the difference between trading blocs and trade organizations. Dole and Chiquita, for example, were incorrectly represented as trading blocs. However, a few candidates were knowledgeable on the conflict involving Caribbean, Latin American banana producers and the WTO.

Question 7

An account of the growth of tourism in the Caribbean was required in this question. It was a popular question and was generally well done. Candidates were able to illustrate the trend with examples and gained marks for their elaboration.

MODULE 3 - Development and Disparity in the Caribbean

Question 8

This was the first of two questions on development and, in general, it was not well done. Many of the problems stemmed from a failure to read the question carefully.

In Part (a), the majority of candidates were able to define the word colonialism in terms of outside or metropolitan control and the subjugation of the weaker by stronger. Some recognized both economic and political control.

In Part (b), candidates were asked to explain how colonial policy produced regional inequalities within Caribbean countries. There were two common errors. Firstly, many candidates saw region as Caribbean region. Secondly, some candidates ignored the word 'within'. Those who correctly interpreted the question were able to describe development of ports, mining centres, plantations and the neglect of other areas. Some candidates were able to apply development theories and referred to the concept of spatial dualism, while others ignored 'economic' activities and concentrated on social inequalities, such as, health, housing.

In Part (c), it was gratifying to find that some candidates had a sound grasp of post-colonial strategies and were able to assess the effect of these on reducing regional inequalities. Unfortunately, many candidates did not seem to appreciate the term 'post colonial' and where they were able to identify the strategies, they were unable to give an assessment of their success or failure.

Question 9

In this question, candidates had to appreciate that the term 'development of under-development' was associated with dependency theory. Once they had accomplished this, they were able to trace what was essentially an historical process. Unfortunately, it was clear that the majority was completely unfamiliar with the topic, for example, some tried to relate it to, Rostow's model.

In Part (b), some candidates were able to demonstrate that development involved more than economic growth and that without improvements in the quality of life, there can be no true development. Some candidates seemed to have confused the meaning of 'simultaneous' with 'synonymous'. Some candidates supported the view in their opening statement but contradicted themselves by pointing out that equity in the provision of social services was necessary for development.

PAPER 03 - INTERNAL ASSESSMENT

Specific Comments – Units 1 & 2

1. There was little or no elaboration on the ‘Statement of Purpose’ for the majority of studies.
2. In many instances, the ‘Method of Data Collection’ was not clearly stated. Candidates often stated that data were collected from various books, without outlining the procedures, sources, and types of data. Some candidates utilized a questionnaire without attaching a sample to the report. Moreover, some questions did not relate to the purpose of the study. Some candidates stated that they utilized ‘random sampling’ but did not conform to the technique of random sampling. Instead, they appeared to have done ‘convenience sampling’. In other instances, the sampling was not representative of the target population or area. Sometimes, only one person was interviewed or one location was studied but inference was made regarding the entire country, region or population.
3. In the area of ‘Presentation and Analyses of Data’, some maps and diagrams were not relevant to the study, although they were generally well labelled. Some were simply illustrations. There was excessive use of photographs as illustrations without much interpretation. Maps and diagrams were generally integrated with the text but not well referenced. ‘Description of Findings’ was often generalized around the issue but not specific to the data collected. Moreover, some descriptions were incorrect.

Many studies were largely descriptive and did not show much ‘Analysis and Findings’. In some instances, ‘The Analysis of Findings’ was generalized and appeared to be ‘text book’ analysis without analysing the data presented.

Little or no reference was made to the source of information that appeared to come from sources other than the candidates’ observations and opinions.

4. The ‘Summary of Findings’ often did not relate to the purpose of the investigation. Sometimes new information was introduced. Some students restated the findings without conclusive thoughts or statements.
5. In many instances, the ‘Bibliography’ was not alphabetically ordered. Also, the publisher and date of publication were not included. Many candidates referenced websites but did not give dates and specific information on what was utilized from the websites.

Overall, the quality of the internal assessment this year was lower than that of last year. There were some excellent studies but a large number fell below what is considered acceptable.

Many of the topics were too broad and were therefore unmanageable. In some cases, the topics were not related to the objectives of the modules and at times the skills employed were outside those stipulated in the syllabus. Some employed no recognisable skill.

In few cases, the marks awarded by teachers were highly inflated and even more troubling was the lack of internal consistency in some cases. Some of the problems encountered were

- excellent studies that were more than twice the word limit
- exclusion of questionnaires
- poor sampling procedures.

Generally, the performance on Unit 2 was weaker than that on Unit 1.