CARIBBEAN EXAMINATIONS COUNCIL

REPORT ON CANDIDATES' WORK IN THE CARIBBEAN ADVANCED PROFICIENCY EXAMINATION MAY/JUNE 2009

GEOGRAPHY

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INTRODUCTION

This year, 2 175 candidates wrote the CAPE examination in Geography. The number writing Unit 1 was 1 264 while 911 wrote Unit 2. For the first time, the format of Paper 01 was multiple-choice.

There were some improvements in map-reading skills. It would appear that there was greater success in completing the syllabus since most candidates attempted the questions in Module 3 and there was an improvement in the performance on this Module over previous years. Improvement was noted also in the physical section of Unit 1, Module 2.

DETAILED COMMENTS

Paper 01

Paper 01 comprised 45 multiple-choice items with 15 items assessing each Module across the three cognitive levels, Knowledge and Comprehension, Application of Knowledge and Practical Skills.

For Unit 1, the mean percentage score earned was 61.4 with a standard deviation of 5.3.

For Unit 2, the mean percentage score was 57.5 and the standard deviation was 4.9.

UNIT 1

Paper 02

Section A

Question 1

This was the compulsory map work question and was based on a map extract of Dominica on a scale of 1:25 000.

In Part (a) (i), the candidates were asked to describe the settlement pattern on the map extract. Candidates do not have a very clear idea of what is expected of a question such as this. One expects a consideration of the areal distribution, identification of the largest town, extent, size, the settlement type that is dominant, other types. Candidates tended to limit their descriptions to the types of settlement on that extract. Some used terms such as ‘nuclear’ instead of ‘nucleated’. A larger number of candidates than in previous examinations could not read grid references and gave northings before eastings.

In Part (a) (ii), candidates were required to suggest three reasons for the location of the settlements on the map extract. Many correctly identified the importance of relief, vegetation, and transport, but had difficulty explaining why these factors influenced settlement. So there was a tendency to list rather than to provide reasons.

A grid was provided for Part (b) and candidates were asked to draw the coastline and insert a number of features.

The outline of the coast was well done and most of the marks on Part (b) were earned on this aspect. However, candidates must remember that sketch maps are incomplete without a key and title.

In Part (c), candidates were to describe the main features of the coastlines. Many listed rather than described. Some explained the formation of the features. The grid references proved to be a problem in this part as well.

Part (d) examined the ability of candidates to identify potentially hazardous situations on the map. The approach to this question was extremely simplistic. Candidates felt that they could select any settlement along the coast and write that they were at risk of destruction by tsunami. Candidates could have, for example, identified the braided course of the Melville Hall River and in view of the large, steep catchments, propose that some flooding could occur.

Section B

Module 1

Question 2

Approximately 45 per cent of the candidates attempted this question which examined aspects of population geography.

In Part (a) (i), the vast majority of the candidates identified the Lorenz Curve and while they seemed to have grasped the idea that the line labelled 'L' depicted perfectly even distribution, as requested in Part (a) (ii), the manner in which this was expressed was most unsatisfactory. The same could be said of Parts (b) (i) and (ii). Candidates offered definitions which had to be translated.

In Part (c), candidates exhibited the need for more practice in writing essays in geography. They will earn marks for the introduction and conclusion but introduction must not consist of a repetition of the question that was asked. This was the approach adopted by most. A comparison of the views of Malthus and Boserup was requested and several candidates wrote excellent responses, identifying where the two differed. Some, however, simply described the theories of both without drawing attention to the differences. Some attempted diagrams to illustrate the two but many were unsuccessful.

Question 3

This was the more popular of the two questions in Module 1. Few candidates were able to state that there was a positive relationship between the size of settlements and the number of functions they perform as required in Part (a).

In Part (b), candidates were asked to describe three factors that influence the location of rural settlements. Water supply, relief and soil were some of the responses expected and some performed competently. However, some wrote about the factors influencing the location of settlements in general. Some appeared to be responding to a question on urban-rural migration, and dealt with traffic congestion and pollution.

In Part (c), candidates were to account for the trend in urban population growth in More Economically Developed Countries (MEDCs) and Less Economically Developed Countries (LEDCs). They were expected to describe the trend revealed in the diagram and then account for it. In general, the trend was correctly described by the vast majority. However, candidates appeared to believe that they were asked to guess what factors might explain the trend in urbanization. Urbanization in MEDCs and LEDCs is a part of the syllabus. Candidates ought to be able to explain, for example, the rapid growth in LEDCs beginning in the 1980s and the recent stagnation in the MEDCs caused by de-urbanization.

Few candidates treated the 2010 - 2020 figures as projections.

Module 2

Question 4

The stimulus in Part (a) was a storm and/or flood hydrograph and candidates were asked to identify the diagram. The response 'hydrograph' was not credited. The correct term is a 'storm hydrograph'. In addition, terms such as ascending limb, descending limb and recessive limb were unacceptable. Candidates must know and use the precise geographical term, for example, rising limb, falling limb or recessive curve as required in Parts (a) (ii) and (iii).

The definitions for lag time, rising and falling limb and base flow were imprecise. Lag time is the interval between peak of rainfall intensity and peak of channel discharge. Candidates were unsure of exactly which peak was recorded. Base flow was confused with base level and groundwater flow.

In Part (b), candidates were required to explain how the hydrological cycle was affected by dams, urbanization, deforestation and irrigation. Responses to this section revealed how little the candidates understood of what the hydrological cycle is and what was the effect of these features on stores and flows. Some candidates gave excellent responses to the effect of deforestation but paid little attention to the increase in flood levels in rivers. They did not link irrigation to a rise or fall in the water table. In fact, several candidates did not know what irrigation is. The responses to urbanization were good. There were extensive and accurate explanations of the effect of the impermeable surfaces on infiltration.

Question 5

In Part (a), candidates were asked to draw a fully-labelled diagram showing the cross-section of a destructive wave. The diagrams were poor. Candidates did not draw the main features of a destructive wave – the plunging breaker, weak swash, steep gradient and short wavelength. Some did not attempt the diagram.

Part (b) tested the concepts of base level and bifurcation ratio.

Base level was confused with base flow and although it was clear that most candidates knew what the bifurcation ratio was, they could not provide a clear definition of the concept. A problem of language skills was recognized. Some had more success in providing the formula for calculating the ratio.

Part (c) required candidates to discuss the development of six types of landforms in limestone areas. This was fairly well done. However, not all features found in limestone areas are landforms, for example, resurgent streams and stalactites.

Module 3

Question 6

In Part (a), candidates were asked to read a passage which described a tsunami and answer questions based on the passage. Candidates appeared confused by the inclusion of this form of question and the performance was extremely poor. Far too many ignored the passage altogether although the question specified "From the passage above". Only one candidate gained full marks on this section.

In Part (b), candidates were unfamiliar with the tsunami warning system and gave very vague and general responses. This section, too, was poorly answered.

Part (c) required candidates to explain how climate, the characteristics of the river basin, and human activities cause rivers to flood. The responses were fairly good but generally, there were two problems. Firstly, candidates failed to make the link between, for example, climate and flooding, that is, intensity of precipitation, causing infiltration capacity to exceed rapid run off, resulting in an

increase in the levels of water in rivers, and secondly, some confusion in candidates' use of the terms river basin and river channel was noted.

Question 7

Fewer candidates attempted this question but the responses were better than the responses to Question 6. Most were familiar with the internal structure of the earth in Part (a) and there was a fair attempt to describe the recycling of the upper layers of the earth. They described the flow of magma to the surface, the formation of plates, their destruction when they subduct, re-absorption into the mantle and flow to the surface. The main problem with the response was the lack of order, the failure of candidates to organize the material.

Part (c) focused on how volcanoes are classified according to the type of eruption and their shape. This question stipulated shape and many candidates failed to appreciate it. They were requested to explain how the type of lava and eruption accounted for the shape of three types of volcanoes. Candidates did not make the links among viscous lava, high silica content, explosive eruptions and the shape of volcanoes. When lava cannot flow quickly it builds up on the upper slope, resulting in steep upper slopes and steep-sided formations.

UNIT 2

Paper 02

Section A

Question 1

Part (a) (i) of this compulsory question was based on a synoptic chart and candidates were asked to identify three weather systems. Most correctly identified the hurricane but there was less success with the Inter-Tropical Convergence Zone (ITCZ) and tropical storm. Many could not read the weather symbols necessary for answering Part (a) (ii). There were good responses to Part (a) (iii), preparation of a weather bulletin for the approaching hurricane, but more detail was needed.

Part (b) was based on the map extract of Savanna-la-mar, Jamaica. Candidates performed well on Parts (b) (i), (ii) and (iii). They identified types of economic activity, the factors accounting for the distribution of sugar cane, as well as the reasons for the development of the Negril area west of the Great Morass. They were, however, problems with the use of grid references – eastings and northings.

Part (c) was misinterpreted by most candidates. Candidates do not appear to appreciate the difference in use of the words "between" and "within". They described disparities within areas rather than between them.

Section B

Module 1

Question 2

Vegetation and soils were examined in this question and Part (a) focused on processes which took place in the different horizons. Many of the candidates ignored the given diagram and offered responses based on what they knew of A, B and C horizons.

In Part (b), candidates were asked to describe two types of plant communities other than trees found in tropical rainforests. Candidates ought to have described communities such as epiphytes, climbers, stranglers. Some of the communities described were not characteristic of the tropical rainforests. They confused epiphytes, parasites and climbers.

In Part (c), candidates were asked to explain how climate and vegetation contribute to the formation of tropical latosols. Candidates were able to describe tropical latosols. However, they could not establish its relationship with climate and vegetation.

Question 3

About 46 per cent of the candidates attempted Question 3 and responses were generally poor. In Parts (a) (i) and (a) (ii), they were able to identify the climatic region represented in the graph, but did not see the significance of the extremes in the temperature and the low precipitation.

In Part (b), the definitions of field capacity and capillary action were inadequate. Candidates should take the cue from the marks awarded to each part of the question. For capillary action, they ought to be able to say more than the upward movement of water.

In Part (c), few candidates gave an acceptable account of the formation of rain, snow and hail. This seems to be a neglected area in the syllabus. Responses were limited to air rising and cooling, to condensation and the formation of clouds. Snow was conceptualized as frozen raindrops and hail as ice cubes. The majority ignored the theories of raindrop formation.

Module 2

Question 4

Part (a) tested the candidates knowledge of Von Thunen's agricultural model. They were required to name points on the axes and approximately 90 per cent of the candidates were able to do this. The majority were also able to describe the concept of locational rent although a few did not quite grasp this concept of profit, describing it as the actual rent paid. The majority of candidates were also able to provide at least a basic definition of land degradation as required in Part (b) (i).

In Part (b) (ii), candidates were asked to discuss four practices that can lead to land degradation. A large number of candidates identified the practice of slash and burn and not wasteful practice such as reducing the length of the fallow. In some instances, candidates discussed general environmental pollution such as water contamination. However, the majority were able to discuss fully at least two practices.

Question 5

This was the more popular question in Module 2. In Part (a), candidates were asked to describe factors which accounted for the growth of industries in a large industrial region in a more economically developed country (MEDC). Responses were poor. No region within the Caribbean satisfies this description. Candidates should have named the region and country.

Part (b) was based on two tables showing tourist arrivals and expenditures. The performance was good. Candidates also performed well on Part (c), which dealt with the negative impact of tourism on the physical environment and social environment. Some were not clear on the differences between physical environment and social environment. 'Social' was also confused with 'cultural'.

Module 3

Question 6

The response rate for Question 6 was approximately 17 per cent and the performance on this question was not very good. Candidates had difficulties indentifying regional planning entities in the Caribbean as required in Part (a). The definitions of Gross Domestic Product (GDP) in Part (b) (i) were incomplete – the value is measured over a year – which is unclear or very confused. Some described Gross National Product (GNP).

Part (c) was based on the models of Friedman, Myrdal and Dependency Theory. Candidates were expected to identify common elements of these three, essentially core or periphery models. The three emphasized contrasts between core and peripheral zones and they also stressed the fact that the core drew upon the resources of the periphery. Candidates found the task extremely challenging. Some described the stages in the models. Others critiqued the models but most simply re-stated the observations outlined in the question.

Question 7

Responses to this question were extremely poor. Part (a) required a line graph which posed few problems. A few drew bar graphs and lines of best fit but they comprised a small minority. The majority of candidates performed poorly on Part (b) which focused on consequences of regional disparities. Regional disparities lead to the concentration of resources, and the neglect of peripheral areas which become vulnerable to claims by neighboring countries thus undermining national development. The performance on Part (c) was better although a few were confused by the term 'post-colonial'. Candidates identified strategies that helped to reduce disparities in access to education, but many did not link the strategies to specific countries.

UNITS 1 AND 2

Paper 03/1 - (Internal Assessment)

General

The quality of the Internal Assessments was disappointing, especially those submitted for Unit 2.

Teachers must take responsibility for the supervision of research projects and guide their students in the use of appropriate geographical techniques. Candidates should be made aware of the appropriate research methods/techniques required for different fields. (It must be noted that while Caribbean Studies research projects may use any number of approaches and techniques (historical and sociological), Geography IA's require geographical techniques).

Many studies, especially in Unit 2, showed little evidence of research; there was more reporting than research.

It is recommended that students and teachers use the new CAPE IA guide; it is hoped that with this guide, there will be an improvement in the quality of the IA's.

Purpose and Methodology

Candidates are often unable to justify the research methods and/or skills used or described and explain how the data collected would be presented and/or used and analyzed.

Quality of Data

The quality of the data was poor mainly because of:

- Inappropriate research methods
- Poorly designed questionnaires
- Poor sampling techniques (very few candidates seem to know what random sampling is)
- Small sample sizes.

Inappropriate methods bedeviled the studies. Questionnaires were used in situations where they cannot provide answers to the issues being examined (a study of coastal features, for example). This is a perennial problem.

Presentation and Analysis of Data

Very often, maps and satellite imagery (for example, Google Earth) were used simply to indicate the location of study area. Maps remain key geographical tools and can be an integral part of a geographical investigation. In many instances where spatial variations of some phenomenon were being examined, the variations were described verbally when they would have had a greater impact if mapping techniques had been used. Maps should be used to present data and should be thoroughly analyzed. Satellite imagery (Google Earth) can also be used with overlays or maps to highlight spatial variations in data. The maps should be integrated, physically, in the body of the study. Candidates used web resources to create bar and pie charts of all forms. They should be introduced and encouraged to make use of a wider range of cartographic techniques. A soil textural triangle could accompany a discussion of soil texture. Scatter diagrams could be effective in specific situations. Also, line graphs were used inappropriately. Line graphs should be used to measure continuous change – to connect points that tract changes over time; to measure how items change relative to each other; to measure progress to a goal. They should **not** be used to show completely separate and unconnected (discrete) events. Photographs were also not used advantageously; like maps, they were often included for visual appeal, rather than as presentation of data for analysis.

Illustrations

Generally, the quality of illustrations has declined over the last few years. Very little attention is paid to details – illustrations are untidy, with titles and labels scrawled, sometimes in pencil. Graphs and maps are often difficult to read, with insufficient labelling, poor choice of fonts, and poor handwriting. Where Excel or other software is being used to generate illustrations, attention must be paid to fonts, alignments, scaling and use of colour. Candidates should know the software well before they attempt to create illustrations with it.

Analysis and discussion / Use of knowledge

Few candidates exhibited a strong grasp of geographical concepts and theories. There is not much evidence that candidates have read much in the area. There is a woeful lack of understanding of geographical terms – technical terms are often not used at all, and sometimes misused.

Many of the shortcomings of the IAs are explained by teachers as an indication of problems they encounter with students – tardiness, carelessness, indifference. It would be easier to accept these explanations if students were not so handsomely rewarded. High marks are seen as an indication of approval. The marks awarded to most of the IAs are far too generous.

Paper 03/2 - (Alternative To Internal Assessment)

This paper is intended for private candidates. Candidates were required to respond to three questions assessing skills similar to those required for the IA.

The performance on Unit 1 was better than on Unit 2.

Unit 1

Mean performance 42 per cent; standard deviation 8.7.

Unit 2

Mean performance 32 per cent; standard deviation 9.0.