

Caribbean Examinations Council



CSEC[®] Geography

**SYLLABUS
SPECIMEN PAPER
MARK SCHEME
SUBJECT REPORTS**

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Geography

Geography is concerned *with the spatial distribution of* human and natural systems and the inter-relationships between them. The study of Geography, therefore, prepares an individual not only for a career in fields *such as teaching*, environment planning and management, *international* relations and geographical information systems, but also helps to develop skills that are *beneficial in other fields*. In addition, it contributes to more meaningful and enjoyable travel and related leisure activities.

The CSEC Geography syllabus, though not limited to a study of the Caribbean, focuses on areas that are particularly relevant to Caribbean students. The syllabus utilises field studies to concretise the link between the subject matter of Geography and the methods of investigation associated with it. By being engaged in the conduct of a field study, the student gets an opportunity to observe, experience, reflect on, and draw conclusions about the intricate inter-dependence and inter-relationships that comprise the human and natural systems. A student completing the CSEC Geography syllabus should be able to make informed and rational decisions and act responsibly with respect to the human and natural systems.

The syllabus is organised under *three* main sections:

- Section I - Practical Skills and Field Study;
- Section II - Natural Systems;
- Section III - Human Systems.



CARIBBEAN EXAMINATIONS COUNCIL

**Caribbean Secondary Education Certificate
CSEC®**

GEOGRAPHY SYLLABUS

Effective for examinations from May–June 2017

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The Geography Syllabus (CXC 02/0/SYLL 05) was revised in 2015 for first examinations in 2017.

Teaching is expected to commence on the revised syllabus in September 2015.

The amendments to the syllabus are indicated by italics.

Please check the website www.cxc.org for updates on CXC's syllabuses.



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Geography Syllabus

◆ RATIONALE

Geography is concerned *with the spatial distribution of* human and natural systems and the inter-relationships between them. It facilitates an understanding of both the issues emerging from human exploitation of natural resources and how natural resources may be managed to assure sustainability. It contributes to an awareness and understanding of the natural environment and fosters an appreciation of its sustainability. It also encourages the development of a sense of responsibility in using and conserving the natural resources of the planet.

Spatial appreciation, interpretation of a variety of illustrations and map reading skills are essential to a study of the subject. These skills enable an individual to operate better in space by being able to establish a location and an orientation of an area and to be able to read the landscape as well as assess the forces which have shaped them.

The study of Geography, therefore, prepares an individual not only for a career in fields *such as teaching, environment planning and management, international relations and geographical information systems*, but also helps to develop skills that are *beneficial in other fields*. In addition, it contributes to more meaningful and enjoyable travel and related leisure activities.

The CSEC Geography syllabus, though not limited to a study of the Caribbean, focuses on areas that are particularly relevant to Caribbean students. The syllabus utilises field studies to concretise the link between the subject matter of Geography and the methods of investigation associated with it. By being engaged in the conduct of a field study, the student gets an opportunity to observe, experience, reflect on, and draw conclusions about the intricate inter-dependence and inter-relationships that comprise the human and natural systems.

A student completing the CSEC Geography syllabus should be able to make informed and rational decisions and act responsibly with respect to the human and natural systems. *Based on the attributes of the Ideal Caribbean Person as articulated by CARICOM, this course will also contribute to the development of a person who demonstrates multiple literacies, independent and critical thinking, questions past and present practices and brings this analysis to bear on an innovative application of science and technology to solving problems one might encounter from day to day. This course of study will also contribute to a person who will learn to know, learn to do, learn to live with others, learn to be and learn to transform oneself and society in keeping with the UNESCO Pillars of Learning.*

◆ AIMS

The syllabus aims to:

1. develop an understanding of geographical phenomena;
2. stimulate interest in the nature of natural and human systems and their interaction;
3. promote an understanding of the processes at work in natural and human systems;
4. develop an understanding of the inter-relationships between the natural and the human environment;
5. foster an awareness of the need for the sustainable use of the *earth's* resources;
6. develop practical skills to enhance geographical knowledge; and,
7. promote knowledge and understanding of Geography at the local, regional and global scales.

◆ GENERAL OBJECTIVES

On completion of this syllabus, students should:

1. *acquire practical skills and techniques in drawing sketch maps and diagrams and in reading and interpreting maps, photographs, tables and graphs which give geographical information;*
2. understand geomorphic, atmospheric and biotic *systems*;
3. understand the relationship between the natural and human systems;
4. *appreciate their role as individuals in the sustainable use of the environment;*
5. *recognise the national and regional responsibilities for the sustainable use of the environment;*
6. understand the *spatial and cultural factors* affecting the distribution *and structure* of human population;
7. *account for the growth of urban settlements;*
8. develop an awareness and understanding of factors influencing the *spatial* patterns of economic activity;
9. understand the *impact of the human systems on the environment*; and,
10. *recognise their social and civic responsibility towards the use of resources and the environment.*

◆ ORGANISATION OF THE SYLLABUS

The syllabus is organised under *three* main sections:

Section I	-	Practical Skills and Field Study;
Section II	-	Natural Systems;
Section III	-	Human Systems.

◆ APPROACHES TO TEACHING THE SYLLABUS

Critical to the study of Geography is the recognition of the inter-dependence and inter-relationships of the elements that comprise the human and natural systems. Teachers will find it useful to employ an integrated approach to teaching this syllabus. In this way students will have an opportunity to observe, experience, reflect on, and draw conclusions about the intricate inter-dependence and inter-relationships that comprise the human and natural systems.

While the topics are presented within this syllabus in a linear manner, it must be emphasised that an integrated approach will enable students to develop:

- 1. an understanding and appreciation of the inter-relationships among the natural systems, the human systems and the skills component of the syllabus as the various factors associated with a particular topic can be fully explored;*
- 2. their critical thinking and problem-solving skills; and,*
- 3. an awareness of their role, as well as others, in the sustainable use of the earth's resources.*

Additionally, integrating the teaching and learning of the three sections of the syllabus allows for more efficient use of class time and also helps students to be better prepared for the constructed-response questions on the examination paper. The following are some suggestions of the ways in which topics in Sections I, II and III can be integrated for efficient and effective teaching and learning.

#	SECTION	SPECIFIC OBJECTIVES
1.	Natural Systems	3; 28–30
	Practical Skills	1 (i-k); 4
2.	Natural Systems	10; 16–19
	Human Systems	21–22
	Practical Skills	1 (i-k); 4
3.	Natural Systems	10
	Human	16–22
	Practical Skills	1 (j-k); 4 (b); 4 (c); 5

*Note that School-Based Assessment (SBA) topics can be selected from among all the Specific Objectives but students can also select a topic that highlights **an integrated approach**, for example, “Investigating the impacts of human activities on tropical forest vegetation.”*

◆ SUGGESTED TIMETABLE ALLOCATION

It is recommended that a minimum of five 40-minute periods per week, *over two academic years* or the equivalent be allocated to the syllabus. The time should include at least one double period.

◆ CERTIFICATION

The syllabus is offered for General Proficiency certification. A candidate's performance will be indicated on the certificate by an overall numerical grade on a six-point scale as well as a letter grade for each of three profile dimensions, namely, Practical Skills, Knowledge and Comprehension, and Use of Knowledge.

◆ DEFINITION OF PROFILE DIMENSIONS

On completion of the syllabus, students are expected to develop skills under three profile dimensions:

1. Practical Skills (PS);
2. Knowledge and Comprehension (KC);
3. Use of Knowledge (UK).

Practical Skills (PS)

The ability to:

1. use scale for measurement;
2. read maps;
3. collect and collate data *for* geographical analysis;
4. draw maps, diagrams and sketches;
5. construct graphs, *tables and divided circles* using simple statistical data; and,
6. read and *identify patterns* in maps, photographs, diagrams, *graphs* and tables.

Knowledge and Comprehension (KC)

The ability to:

1. define terms and recall facts on a range of geographical phenomena;
2. describe processes impacting on the development of the *natural and human environments*; and,
3. *describe the interaction between biotic and abiotic factors in an area or biome.*

Use of Knowledge (UK)

The ability to:

1. explain geographical processes;
2. interpret and draw inferences from geographical data;
3. disaggregate and organise information to show inter-relationships;
4. *explain the importance of the factors contributing to the development of natural and human environments;* and,
5. draw conclusions.

◆ **FORMAT OF THE EXAMINATION**

The examination is offered at the General Proficiency level. The assessment comprises three papers: Paper 01, Paper 02 and Paper 031 OR Paper 032.

Papers 01 and 02 are assessed externally. Paper 031 is the SBA and is assessed internally by the teacher and moderated by CXC. Paper 032 is an alternative to the SBA, assessed externally and is intended for those students who registered to sit the examination as private candidates.

EXTERNAL ASSESSMENT BY WRITTEN PAPERS (80 per cent of total assessment)

Paper 01 (1 hour 30 minutes, 30 per cent of total assessment)

1. *Composition of the Paper*

Paper 01 consists of 60 multiple-choice items assessing **all areas of the syllabus**. All questions are compulsory.

2. *Mark Allocation*

This paper is marked out of a total of 60. The marks are distributed across questions and profiles as indicated below:

Practical Skills (PS)	-	24
Knowledge and Comprehension (KC)	-	28
Use of Knowledge (UK)	-	08

Paper 02 (2 hours 30 minutes, 50 per cent of total assessment)

1. Composition of the Paper

Paper 02 comprises four compulsory questions with one question each assessing:

- (a) *Map-reading skills.*
- (b) *Natural systems.*
- (c) *Human systems.*
- (d) *Integration of both natural and human systems.*

Note: *Parts of questions in (b) and (c) can also be based on interactions of the Natural and Human Systems.*

2. Mark Allocation

This paper consists of constructed-response questions and is marked out of 100. The marks are distributed across questions and profiles as indicated in the following table:

Content area	Question	Profile			Total Marks
		PS	KC	UK	
<i>Map Reading</i>	<i>1</i>	<i>12</i>	<i>7</i>	<i>6</i>	<i>25</i>
<i>Natural Systems</i>	<i>2</i>	<i>5</i>	<i>8</i>	<i>12</i>	<i>25</i>
<i>Human Systems</i>	<i>3</i>	<i>5</i>	<i>8</i>	<i>12</i>	<i>25</i>
<i>Natural Human Systems</i>	<i>4</i>	<i>5</i>	<i>8</i>	<i>12</i>	<i>25</i>
Total		27	31	42	100

3. Question Type

Questions will be structured into different sub-parts and may require short or extended responses. Questions may also include stimulus materials such as maps, charts, tables, diagrams, photographs or prose or any combination of these. The answers are to be written in the space provided in the booklet.

SCHOOL-BASED ASSESSMENT (20 per cent)

Paper 031 (SBA) (40 marks)

1. Composition of Paper

Paper 031 is the SBA and is internally assessed. For this paper, the student presents the report from a field study in which he or she identifies *a geographical topic for investigation, develops field study questions, conducts an enquiry, and communicates the findings and recommendations.*

The Field Study Report should be completed by students and submitted to reach the Council by April 30 of the year of the examination. The report should not exceed *1000 words, excluding the strategy sheet, illustrations, tables, bibliography and appendices.*

Further details of the SBA requirements are given on pages 29–44.

2. Mark Allocation

This paper is marked out of 40 and the marks are distributed to profiles as follows:

Practical Skills (PS)	-	10 marks
Knowledge and Comprehension (KC)	-	10 marks
Use of Knowledge (UK)	-	20 marks

Paper 032 (1 hour 45 minutes, 20 per cent of total assessment)

Paper 032 is the alternative to the SBA. This paper is done by students who register to sit the examination as private candidates. The paper is externally assessed and covers knowledge of the research skills used in conducting the field study and presenting the report similar to the requirements of the SBA.

1. Composition of the Paper

This paper consists of six compulsory constructed-response questions. The paper is marked out of a total of 40 marks. The marks are distributed across profiles indicated as follows:

Practical Skills (PS)	-	10 marks
Knowledge and Comprehension (KC)	-	10 marks
Use of Knowledge (UK)	-	20 marks

2. Question Type

This paper consists of short answer questions which may include stimulus materials such as maps, charts, tables, diagrams, photographs or prose or any combination of these. The answers are written in the space provided in the booklet.

Additional guidelines for Paper 032 are provided on page 45.

PAPER MARK ALLOCATION BY PROFILES

The weighting of the profile dimensions for the examination is as follows:

<i>Profile Dimensions</i>	<i>General Proficiency</i>			
	<i>Paper 01</i>	<i>Paper 02</i>	<i>Paper 031/032 (SBA)</i>	<i>Total</i>
<i>Practical Skills (P1)</i>	24	27	10	61
<i>Knowledge and Comprehension (P2)</i>	28	31	10	69
<i>Use of Knowledge (P3)</i>	08	42	20	70
<i>Total</i>	60	100	40	200
<i>%</i>	30	50	20	100

◆ REGULATIONS FOR PRIVATE CANDIDATES

Private candidates will be required to write Paper 01, Paper 02 and Paper 032, the Alternative to the SBA. A private candidate must enter through a school, a recognised educational institution or the Local Registrar's Office.

◆ REGULATIONS FOR RESIT CANDIDATES

Candidates may elect to resit the examination at any time. However, resit candidates who have earned a moderated score of 50 per cent of the score for the SBA may elect not to repeat this component, provided they rewrite the examination no later than two years immediately following their first attempt. These candidates must rewrite Papers 01 and 02 of the examination for the year in which they re-register. Resit candidates who have obtained a moderated score of less than 50 per cent of the score for the SBA must repeat the component at any subsequent sittings.

Resit candidates may enter through schools, recognised educational institutions or the Local Registrar's Office.

◆ STUDY AREAS OF THE SYLLABUS

Study areas from the Caribbean and *selected countries outside of the Caribbean should* be drawn from the areas listed below.

Caribbean

Anguilla, Antigua and Barbuda, The Bahamas, Barbados, Belize, Cayman Islands, Cuba, Dominica, Dominican Republic, Dutch Caribbean, Grenada, Guadeloupe, Guyana, Haiti, Jamaica, Martinique, Montserrat, Puerto Rico, St Kitts and Nevis, St Lucia, St Vincent and the Grenadines, Suriname, Trinidad and Tobago, Turks and Caicos Islands, and the Virgin Islands.

Countries outside of the Caribbean

United States of America, United Kingdom, Singapore, *Brazil, India, China and Nigeria.*

◆ SECTION I – PRACTICAL SKILLS AND FIELD STUDY

GENERAL OBJECTIVE

On completion of this Section, students should acquire *practical skills and techniques in drawing sketch maps and diagrams and in reading and interpreting maps, photographs, tables and graphs which give geographical information.*

SPECIFIC OBJECTIVES

1. Given an extract from a topographic map of any Caribbean territory, or a sketch map, students should be able to:
 - (a)
 - (i) read conventional (map) symbols; and,
 - (ii) interpret conventional (map) symbols.
 - (b) locate places, using four and six-figure grid references;
 - (c) give direction of one place in relation to another using the 16 points of the compass;
 - (d) measure the grid bearing of one place in relation to another;
 - (e) use the scale to measure *straight and curved* distances;
 - (f)
 - (i) *copy a section of the map;*
 - (ii) reduce a section of the map; and,
 - (iii) enlarge a section of a map.
 - (g)
 - (i) draw cross sections and *sketch sections*; and,
 - (ii) interpret cross sections and *sketch sections*.
 - (h)
 - (i) calculate gradients; and,
 - (ii) *differentiate among steep, moderate and gentle slopes.*
 - (i) *draw diagrams to illustrate geographical features;*
 - (j) *describe landscapes using the following: relief, drainage and land use; and,*
 - (k) explain the inter-relationships among relief, drainage and land use.

SECTION I – PRACTICAL SKILLS AND FIELD STUDY (cont'd)

2. Given a ground or aerial photograph, sketch map or a diagram, students should be able to interpret geographical features.
3. *Students should be able to:*
 - (a) *illustrate weather systems using isobars and relevant symbols; and,*
 - (b) *interpret rainfall and temperature graphs and maps.*
4. Students should be able to:
 - (a)
 - (i) *identify the main lines of latitude and longitude;*
 - (ii) *locate a place from its latitude and longitude; and,*
 - (iii) *calculate the Standard Time of places.*
 - (b) *name and locate countries in the Caribbean;*
 - (c) *draw sketch maps to show relative location and spatial distribution; and,*
 - (d) *draw diagrams to illustrate geographical features.*
5. Students should be able to:
 - (a) *construct tables and graphs and draw diagrams as specified in the content;*
 - (b) *use descriptive statistics (mean, median and mode) to summarise data; and,*
 - (c) *interpret graphs, tables, statistical maps and diagrams as specified in the content.*
6. Students should be able to:

collect, record and present information based on a geographical field study on at least one (1) chosen *objective* from the syllabus.

SECTION I – PRACTICAL SKILLS AND FIELD STUDY (cont'd)

CONTENT

1. MAPS

- (a) *Essential elements of maps (title, scale, legend, north point and border); placement of labels and the use of colours).*
- (b) *Grid references – 4 and 6 figures.*
- (c) *Compass Direction (16 points).*
- (d) *Grid bearings measured clockwise from Grid North (indicated by the direction of the Easting lines).*
- (e) *Measuring straight and curved distances (to nearest 100 metres).*
- (f) *Copying, reducing or enlarging topographic maps guided by the map scale.*
- (g) *Cross sections and sketch sections including inter-visibility (profile view of the landscape and relief and whether or not one point could be seen from another).*
- (h)
 - (i) *Calculate gradient, using ratios and percentages.*
 - (ii) *Variations in slope – steep, moderate and gentle.*
- (i) *Diagrams that illustrate features of the physical (for example, land above a certain height, distribution of major landforms) and human environment (for example, distribution of farmland, settlement or forest).*
- (j) *Landscape descriptions:*
 - (i) *Relief – the distribution, height and size of landforms; types of slopes (concave, convex, straight, terraced/stepped); nature and height of slopes (steep, gentle, undulating, uneven), spurs, valleys, plains, depressions, ridges, plateaux, escarpments, cliffs, passes (cols, saddles).*
 - (ii) *Drainage – drainage patterns, density, direction of flow, quality of the drainage, shape and size of channel.*
 - (iii) *Land use – vegetation, agriculture, industry, transport networks and settlement form and distribution.*
- (k) *Landscape inter-relationship and patterns (map correlations); the association among relief, land use patterns and drainage.*

SECTION I – PRACTICAL SKILLS AND FIELD STUDY (cont'd)

2. Photographs, Maps and Diagrams

Landforms/features (physical and human) in photographs, maps and diagrams relevant to the syllabus.

3. Weather Systems

- (a) *Weather systems – their pattern of isobars; relevant symbols and wind direction: Inter-Tropical Convergent Zone (ITCZ), tropical waves, tropical storms/hurricanes, cold fronts anticyclones. (Note that station models are not required.)*
- (b) *Rainfall and temperature graphs and maps (for example, range, seasons, relationship between temperature and rainfall).*

4. Location and Time

- (a)
 - (i) *Main lines of latitude and longitude (Equator, Tropics of Cancer and Capricorn, Arctic and Antarctic Circles, North and South Poles, Greenwich/Prime Meridian);*
 - (ii) *Name and locate a place from its latitude and longitude; and,*
 - (iii) *Earth's rotation, longitude and time.*
- (b) *Caribbean countries as outlined in the syllabus.*
- (c) *Sketch maps that illustrate relative location and spatial distribution.*
- (d) *Diagrams that illustrate geographical features (apart from those on topographical maps).*

5. Tables, Graphs, Maps and Central Tendency

- (a) *Construction of tables, bar graphs, line graphs, divided circles, climate graphs, dot maps.*
- (b) *Measures of Central Tendency: mean, median and mode.*
- (c) *Interpretation of data on charts, tables, bar graphs (including population pyramids), line graphs, climate graphs, divided circles, dot maps, choropleth maps and isopleth maps.*

SECTION I – PRACTICAL SKILLS AND FIELD STUDY (cont'd)

6. FIELD STUDY

- (a)
 - (i) *field study topic based on at least one of the specific objectives of the syllabus;*
 - (ii) *field study questions; and,*
 - (iii) *instruments to collect data.*
- (b) *Use of research techniques:*
 - (i) *sampling methods (for example, random, stratified and point); and,*
 - (ii) *data collecting methods (for example, questionnaires; interviews; checklists, field observations).*
- (c) *Maps:*
 - (i) *site showing the immediate area – large-scale (1:10 000; 1:25 000); and,*
 - (ii) *location – small-scale maps (Atlas scale or larger) to show regional or national position.*
- (d) *The use of appropriate map symbols (for example, use of conventional symbols and colours) and relevant annotated photographs and diagrams.*

Suggested Teaching and Learning Activities

To facilitate students' attainment of the objectives of this Section, teachers are advised to engage students in the teaching and learning activities listed below.

1. *Use topographic maps to identify conventional map symbols and observe the patterns and the interrelationship of relief, drainage and land use. (The school surroundings can be used to highlight inter-relationships.)*
2. *Engage students in activities which require measuring distance. Help students to appreciate that different units of measurement are more appropriate for:*
 - (a) *large distances (for example, the journey from school to the furthest settlement in your country – kms/miles);*
 - (b) *intermediate distances (for example, the height of the classroom window – metres/feet); and,*
 - (c) *small distances (for example, the size of a pencil-cm/inches).*
3. *Guide students to build models of parts of topographical maps, attaching labels to identify different relief forms.*

4. *Design exercises that require students to use their rulers to subdivide a square. Activities should ensure that they practise the skills related to grid references.*
5. *Design lessons using the temperature and rainfall maps and diagrams in the atlas and from the Internet. Have students interpret and draw inferences from these data.*

SECTION I – PRACTICAL SKILLS AND FIELD STUDY (cont'd)

6. *Google Earth software could be used to show how an area has changed over time using the relevant function on this software. Traditional relief maps could also be draped over or added as a layer in Google Earth, so that students could see the relationship between satellite images and topographical maps. Students would also see more recent representations of an area. Exercises on location, land uses and other spatial patterns as well as the inter-relationship between the physical and human environment can also be designed using Google maps.*
7. *Use virtual field trips as a strategy to build data collection, presentation and other skills associated with the SBA. Group work and role playing can be incorporated here. Have students design and administer questionnaires linked to the specific objectives.*
8. *Invite personnel involved in the creation, use or maintenance of Spatial Data (Geographic Information Systems agencies) to make presentations to the class on how spatial data is generated, used and stored. (Field trips to such agencies can also be arranged.) This would enable students to compare traditional versus contemporary ways in which spatial data is used. This will also help students to better understand and appreciate the relevance of the skills component of Geography.*

◆ SECTION II – NATURAL SYSTEMS

GENERAL OBJECTIVES

On completion of this Section, students should:

1. understand geomorphic, atmospheric and biotic *systems*;
2. understand the relationship between the natural and human systems;
3. *appreciate their role as individuals in the sustainable use of the environment; and,*
4. *recognise the national and regional responsibilities for the sustainable use of the environment.*

SPECIFIC OBJECTIVES

Students should be able to:

1. *describe the internal structure of the earth;*
2. *explain the theory of plate tectonics;*
3. *describe the consequences of the movement of plates;*
4. explain the formation of intrusive and extrusive volcanic features;
5. *describe the formation of the three types of rock;*
6. (a) define weathering;
(b) explain the processes of weathering as specified in the content; and,
(c) *explain the processes of mass movement as specified in the content.*
7. *explain the formation of limestone features in the Caribbean as stated in the content;*
8. differentiate between weather and climate;
9. *explain the factors influencing the weather and climate of a place as stated in the content;*
10. describe the characteristics of the Equatorial and Tropical Marine Climates;
11. describe the weather conditions associated with Caribbean weather systems;
12. *describe the “greenhouse effect”;*

SECTION II – NATURAL SYSTEMS (cont'd)

13. describe the ways in which human activities influence climate change;
14. compare the consequences of climate change in the Caribbean with those in **EITHER** the United States of America (USA) **OR** the United Kingdom (UK);
15. compare measures to reduce the effects of climate change in the Caribbean with those used **EITHER** in the United States of America (USA) **OR** the United Kingdom (UK);
16. (a) describe the adaptations of vegetation to the environment; and,
(b) explain the characteristics of the Tropical Rainforest biome.
17. explain the impact of human activities on the tropical forests' biomes in the Caribbean;
18. describe the major constituents of soil;
19. explain the factors influencing the formation of latosols;
20. describe the hydrological cycle;
21. (a) describe river processes; and,
(b) describe wave processes.
22. (a) explain the formation of river landforms; and,
(b) explain the formation of coastal landforms.
23. describe drainage patterns;
24. describe types of coral reefs;
25. describe the conditions necessary for the successful formation of coral reefs in the Caribbean;
26. explain the importance of coral reefs in the Caribbean;
27. explain the importance of mangrove wetlands in the Caribbean;
28. distinguish between a natural hazard and a natural disaster;
29. describe the impact of earthquakes, hurricanes, volcanoes, landslides and flooding on the physical and human environments in the Caribbean; and,
30. explain the responses of individuals, national and regional agencies in the Caribbean to reduce the effects of the natural hazards and disasters identified in Objective #29.

SECTION II – NATURAL SYSTEMS (cont'd)

CONTENT

SYSTEMS ASSOCIATED WITH THE LITHOSPHERE, ATMOSPHERE, BIOSPHERE AND HYDROSPHERE

Structure of the Lithosphere, Plate Tectonics and Rock Formation

1. *Internal structure of the earth including continental and oceanic plates, crust, mantle and core.*
2. Theory of plate tectonics, including global distribution of plates, *movement of plates and types of plate boundaries.*
3. *The occurrence and the distribution of earthquakes, island arcs, volcanoes, fold mountains, major faults and ocean trenches.*
4. Characteristics of:
 - (a) intrusive volcanic features (sills, dykes, *plugs* and batholiths); and,
 - (b) extrusive volcanic features (*caldera, shield volcano, composite cone, lava plateau*).
5. *The rock cycle: formation of igneous, sedimentary and metamorphic rocks.*

Weathering and Mass Movement

6.
 - (a) Definition of weathering, emphasising the “in situ” condition.
 - (b)
 - (i) Location, processes *and results of chemical weathering* (carbonation *and hydrolysis*).
 - (ii) Location, processes *and results of physical weathering* (frost action, *exfoliation*).
 - (iii) *Processes and results of biological weathering.*
 - (c) Definition, causes *and results of mass movement* (*soil creep and landslides*).
7. The characteristics of limestone and the processes leading to the formation of limestone features created on the surface (*clints and grykes, surface depressions, cockpits, swallow holes*) *and underground* (caves, stalactites, stalagmites, pillars, *underground rivers*).

SECTION II – NATURAL SYSTEMS (cont'd)

Weather, Climate, Vegetation and Soil

8. Difference between weather and climate.
9. *Factors influencing weather and climate: latitude, altitude, relief, distance from the sea (continentality) and winds (land and sea breezes and prevailing winds).*
10. Characteristics of Equatorial and Tropical Marine Climates – temperature, precipitation, pressure.
11. Weather conditions associated with Caribbean weather systems:
 - (a) tropical waves, hurricanes and cold fronts (*before, during and after*); and,
 - (b) Intertropical Convergence Zone (ITCZ) and anticyclones.
12. *Insolation, radiation and the role of greenhouse gases in heating the earth.*
13. *Human activities that contribute to global warming and influence climate change (such as deforestation and activities that lead to emissions of carbon dioxide and other greenhouse gases).*
14. *Examples of the consequences of climate change in the Caribbean and **EITHER** United States of America (USA) **OR** the United Kingdom (UK): for example, sea level rise – examples of increased incidence of coastal flooding, impacts on coral reefs, coastal wetlands and settlements; changes in weather patterns and their impacts.*
15. *Measures to reduce the effects of climate change in the Caribbean and those used **EITHER** in the United States of America (USA) **OR** the United Kingdom (UK) (for example, mitigation measures including reduced emissions, sustainable forestry, education).*
16.
 - (a) *Adaptations of vegetation to the environmental factors of climate, soil, biotic conditions (including humans).*
 - (b) *The inter-relationship among climate, vegetation and soil seen in the characteristics of the tropical rainforest biome: types of trees; types of leaves and roots; structure; species composition; seasonality.*

SECTION II – NATURAL SYSTEMS (cont'd)

17. *Positive impacts (sustainable management) and negative impacts (deforestation, soil erosion, soil exhaustion) of human activities on tropical forests' biomes.*
18. *Major constituents of soil: organic and inorganic matter, bacteria, water and air.*
19. *Factors influencing the formation of latosols: interaction amongst climate, vegetation, biota, and water in soil.*

Fluvial and Coastal Processes

20. *The hydrological cycle (evaporation, condensation, precipitation, transpiration, run-off, infiltration, through-flow, percolation, ground water flow) and its features (springs, aquifers, water table).*
21.
 - (a) Drainage system – fluvial processes (erosion, transportation, and deposition).
 - (b) Coastal system – wave processes (erosion, transportation, and deposition).
22. Landforms:
 - (a) rivers – river valleys, waterfalls, meanders, braided channels, ox-bow lakes, levees, flood plains, deltas; and,
 - (b) coastal – cliff, wave-cut platform, headland, bay, cave, arch, stack, spit, bay-bar, tombolo, beach.
23. *Drainage patterns – dendritic, trellis, radial and relationship to rock type and geology.*
24. *Types of coral reefs: fringing, barrier and atoll.*
25. *Conditions necessary for the successful formation of coral reefs: water – depth, salinity, temperature, turbidity; the presence of beneficial algae and fish.*
26. *Importance of coral reefs – coastal protection; raw material for beaches; ecological and economic benefits.*
27. *Importance of mangrove wetlands: coastal protection; ecological; socio-economic benefits.*

SECTION II – NATURAL SYSTEMS (cont'd)

Natural Hazards and Natural Disasters

28. *Difference between a natural hazard and a natural disaster.*
- (a) *Natural hazard – risk resulting from processes associated with the lithosphere, biosphere and atmosphere.*
 - (b) *Natural disaster – effects of the event on the physical and human landscapes, especially in areas of high population density.*
29. (a) *Areas in Caribbean countries at high risk from the hazards of earthquakes, hurricanes, volcanoes, landslides, flooding.*
- (b) *The effects of natural hazards and disasters – short term and long term.*
30. Responses of individuals, national and regional agencies to the risk of the hazards and the effects of natural disasters in the Caribbean – the stages in the hazard/disaster management cycle.

Suggested Teaching and Learning Activities

To facilitate students' attainment of the objectives of this Section, teachers are advised to engage students in the teaching and learning activities listed below.

1. *Have students create a concept map or poster showing the impact of plate tectonics on the physical and human environment.*
2. *Place students in groups to create a news report/documentary/skit on the hazards that affect the region. Ask students to conduct interviews, Internet research, review maps to aid with their presentations.*
3. *Invite an environmentalist to make an interactive presentation on the challenges faced by fluvial (river) and/or coastal systems as a result of both natural and human factors. The presentation can be followed by a question and answer session between the students and the expert on the methods that can be adopted to improve the monitoring of the particular environment. The students should be encouraged to explore their role in the sustainable use and management of the environment.*
4. *Have students tour the school as a class, paying close attention to the geographical features of the school environment. Class discussions and exercises can focus on potential hazards as well as their role and that of other agencies in reducing the effects of hazards. Guide the students to construct a thematic map of the potential hazards of the school environment which can form the basis of a report concerning ways to improve its environment.*

SECTION II – NATURAL SYSTEMS (cont'd)

5. *Have the class develop a disaster plan for their school or have them assess the school's existing disaster plan based on what they have learned in this Section. Students would be expected to critique the existing plans and make recommendations for improvement, where applicable.*
6. *Use Social Networking Websites to create groups for interaction.*
7. *Use digital devices to create presentations, for example, on issues pertaining to global warming and climate change. Have students create PowerPoint presentations and download films pertinent to topics in the syllabus.*
8. *Have students use Google Earth to create 'fly throughs' (three-dimensional [3D] videos) over an area such as the length of a coastline, along a road or railway or even part of or an entire river course. This facility could also be used to highlight the relationship between the physical and human environment.*
9. *Field trips remain an excellent strategy to investigate geographical phenomena, for example, rivers, vegetation, coastal features.*

◆ SECTION III – HUMAN SYSTEMS

GENERAL OBJECTIVES

POPULATION, ECONOMIC, AGRICULTURAL AND SUSTAINABLE DEVELOPMENT SYSTEMS

On completion of this Section, students should:

1. understand the spatial and cultural factors affecting the distribution and structure of human population;
2. *account for the growth of urban settlements;*
3. develop an awareness and understanding of factors influencing the spatial patterns of economic activity;
4. *understand the impact of the human systems on the environment; and,*
5. *recognise their social and civic responsibility towards the use of resources and the environment.*

SPECIFIC OBJECTIVES

Students should be able to:

1. explain the factors influencing the distribution of population and population density in the Caribbean;
2. *interpret maps and diagrams of population distribution, density and structure;*
3. compare the factors affecting the growth of population in the Caribbean with **ANY ONE** of the following countries: *India, China, Nigeria;*
4. *differentiate among urbanisation, urban growth and urban sprawl;*
5. describe the causes, benefits and problems of population growth in named urban areas in the Caribbean;
6. discuss the attempts to control urbanisation in the Caribbean;
7. (a) *describe the causes of in-migration and out-migration in the Caribbean since the 1990s; and,*
(b) *describe the consequences of in-migration and out-migration in the Caribbean since the 1990s.*
8. (a) define primary, secondary and tertiary activities; and,

SECTION III – HUMAN SYSTEMS (cont'd)

- (b) name and locate examples of primary, secondary and tertiary activities in the Caribbean.
9. *explain the relative importance of primary, secondary and tertiary activities to the Caribbean;*
 10. *differentiate between renewable and non-renewable resources;*
 11. *name and locate areas within Caribbean countries with natural resources used for commercial purposes (as stated in the content);*
 12. explain the factors influencing the location of primary and secondary industries with particular emphasis on those stated in the content;
 13. *explain the factors influencing the development and growth of the tourism industry in the Caribbean;*
 14. explain the benefits and problems associated with the industries in the Caribbean as stated in the content;
 15. discuss solutions to the problems faced by the selected industries in the Caribbean;
 16. *explain the factors influencing the development of agriculture in the Caribbean;*
 17. locate areas in the Caribbean where commercial farming (both large-scale and small-scale) and subsistence farming are important;
 18. compare the characteristics of large scale and small scale commercial farming in a named Caribbean country;
 19. *compare the characteristics of sugar cane farming in Guyana with sugar cane farming in Brazil;*
 20. *compare the ways in which changes in commercial farming in the Caribbean and in Brazil impact their economic development;*
 21. *explain the ways in which economic activities can contribute to environmental degradation in the Caribbean; and,*
 22. *discuss measures to ensure the sustainable management of resources in the Caribbean.*

SECTION III – HUMAN SYSTEMS (cont'd)

CONTENT

POPULATION, ECONOMIC, AGRICULTURAL AND SUSTAINABLE DEVELOPMENT SYSTEMS

1. Factors influencing distribution and density of population – *historical, cultural, physical, socio-economic factors.*
2. *Dot and choropleth maps and population pyramids.*
3. Factors influencing population growth in the Caribbean compared with **EITHER** those in *India or China or Nigeria: birth rate, death rate, natural increase, migration, fertility rate, life expectancy, government policies.*
4. Definitions of urbanisation, urban growth and urban sprawl.
5. *Causes of population growth in capital cities and other urban areas; for example, natural increase; migration (internal, regional and international):*
 - (a) *Benefits (for example, labour supply, economic growth).*
 - (b) *Problems (for example, overcrowding, crime, housing, environmental).*
6. *Attempts to control urbanisation, for example, zoning, decentralisation of services, development of housing schemes, upgrade of rural areas, and diversification of agriculture.*
7. *Definition of in-migration and out-migration and types of migration (regional and international):*
 - (a) *Reasons for in and out migration: push and pull factors (economic, social, and political) with relevant examples of origin of migrants and main destinations of migrants.*
 - (b) *Consequences of in and out migration: economic and social impacts.*
8.
 - (a) Definitions of primary, secondary and tertiary activities.
 - (b) Names and location of primary, secondary and tertiary activities in the Caribbean.
9. *Characteristics and relative importance of primary, secondary and tertiary economic activities to the Caribbean.*

SECTION III – HUMAN SYSTEMS (cont'd)

10. *Renewable (forest, fish) and non-renewable (oil and natural gas, bauxite) industries.*
11. *Names and locations of areas within Caribbean countries with the following resources: forests; fish; limestone; bauxite; petroleum; natural gas; and, gold.*
12. Factors (raw materials, energy, transport, markets, labour, capital, the role of government) influencing the location of **THREE** of the following industries:
 - (a) **EITHER** fishing **OR** forestry;
 - (b) **EITHER** oil and natural gas **OR** bauxite; and,
 - (c) food processing within CARICOM and Singapore.
13. *Factors influencing the development and growth of the tourism industry (for example, physical, historical, cultural, man-made attractions, role of government).*
14. Benefits and problems associated with the selected industries in the Caribbean:
 - (a) Benefits (for example, employment, revenue, improved standard of living, economic development).
 - (b) Problems (for example, declining sources of raw material, high exploration costs, competition, pollution, accessibility, transportation, sustainability).
15. Solutions to problems faced by the selected industries in the Caribbean – for example, exploration of new sources of raw materials, alternative sources of raw materials, diversification.
16. *Historical, physical, human and economic factors associated with agriculture.*
17. Areas in Caribbean countries where commercial farming (both large-scale and small-scale) and subsistence farming are important.
18. *Characteristics of commercial farming in a named Caribbean country (size of farm, ownership, labour, farming practices, products, markets, technology).*
19. *Characteristics of sugar cane farming – acreage, farming practices, labour, technology (for example, the use of materials, tools, techniques and sources of power to improve productivity), and markets.*

SECTION III – HUMAN SYSTEMS (cont'd)

20. (a) *Changes in commercial farming – for example, government policies (including issues of food security), bio-fuels, value-added products, technology, shade houses, new markets.*
- (b) *Impact on economic development – for example, cost and availability of traditional products, income, government revenue, job opportunities, diversification.*
21. *Environmental Degradation:*
- (a) *Agriculture – deforestation, soil erosion and soil exhaustion, flooding, pollution.*
- (b) *Quarrying, mining and secondary industries – deforestation, pollution, land degradation.*
- (c) *Tourism – coral reef destruction, pollution, destruction of mangroves.*
22. *Measures to ensure the sustainable management of resources – regional, national and personal responses in primary and secondary industries and tourism; (for example, education, organic farming, forest and soil conservation, fisheries management, improved mining and manufacturing techniques, and ecotourism).*

Suggested Teaching and Learning Activities

To facilitate students' attainment of the objectives of this Section, teachers are advised to engage students in the teaching and learning activities listed below.

- There is a range of graphic organisers (for example, Frayer, Spoke, Venn Diagrams) around which lessons can be designed to help students recognise spatial patterns and the inter-relationships between the human and physical systems. Have students study the tourism industry, for example, using this approach where they will use graphic organisers to first brainstorm about the industry and build on what they already know. An Internet search provides many more useful examples.*
- Have students engage in team- or group-based learning. The jigsaw type of cooperative learning where each group member must participate can be used for the study of population, agriculture and industries.*
- Organise field trips to farms or fishing villages. Invite personnel from the agriculture and forestry departments to conduct interactive sessions with students.*
- Have students engage in library research, reviewing newspapers and other resources on issues relating to agriculture or industry. Their research findings can be delivered by a variety of methods such as PowerPoint presentations.*

SECTION III – HUMAN SYSTEMS (cont'd)

5. *Have students use the atlas to highlight how physical factors influence population distribution and density in the Caribbean and the selected country outside of the Caribbean. Use topographical and Google maps/aerial photographs to show such patterns. Students can draw and interpret graphs, tables and diagrams that show population data. Refer to the Population Reference Bureau for video clips and other relevant population information.*
6. *Have students conduct a mini census in their school to find out the characteristics of the school's population (for example, sex, age, ethnicity, religion). Use the appropriate graphs, charts and diagrams to present the data collected.*
7. *Using apps, like Jing, have students create screen casts of lessons and post these online for students and teachers to view and to generate class discussions. Students can also use the apps to create short videos, for example, on agriculture in the Caribbean.*
8. *Have students design scenarios in which economic activities contribute to environmental degradation. Have students develop hypotheses, say how they would collect and present the data as well as analyse, discuss and draw conclusions.*

◆ SCHOOL-BASED ASSESSMENT (40 marks, 20 per cent)

School-Based Assessment is an integral part of student assessment in the course covered by this syllabus. It is intended to assist students in acquiring and using certain knowledge, skills and attitudes that are associated with the subject. The activities for the SBA are linked to the syllabus and are part of the learning activities to enable the student to achieve the objectives of the syllabus.

School-Based Assessment provides an opportunity to individualise a part of the curriculum to meet the needs of students. It facilitates feedback to the student at various stages of the experience. This helps to build their self-confidence as students proceed with their studies. School-Based Assessment also facilitates the development of the critical skills and abilities that are emphasised by this CSEC subject and enhances the validity of the examination on which the candidate's performance is reported. SBA, therefore, makes a significant and unique contribution to both the development of relevant skills and the testing and rewarding of students for the acquisitions of those skills.

During the course of study for the subject, students shall obtain marks for the competence they develop and demonstrate in undertaking their SBA assignments. These marks contribute to the final marks and grades that are awarded to students for their performance in the examination.

The guidelines provided in this syllabus for selecting appropriate tasks are intended to assist teachers and students in designing assignments that are valid for the purpose of SBA. These guidelines are intended also to assist teachers in awarding marks that are reliable estimates of the achievement of students in the School-Based Assessment component of the course. In order to ensure that the scores awarded by teachers are in line with the CXC standards, the Council undertakes the moderation of a sample of the School-Based Assessment assignments.

The Caribbean Examinations Council seeks to ensure that the SBA scores are valid and reliable estimates of accomplishment. Candidates are provided with the guidelines below in order to successfully complete the SBA.

THE FIELD STUDY

The Field Study is the SBA component of the Geography Syllabus.

The Field Study is intended to:

1. provide the student with the opportunity to pursue a study of an area of special interest within the prescribed syllabus;
2. develop self-directed learning in which a student identifies and defines a geographical problem, conducts an enquiry to address a problem and presents the findings;
3. provide an opportunity to apply relevant knowledge, skills, attitudes and principles of the discipline to the local environment; and,
4. give an opportunity for teacher involvement in the evaluation process.

GENERAL OBJECTIVES

On completion of the Field Study in Geography the student should have acquired:

1. Knowledge of the:
 - (a) facts relevant to the topic of study; and,
 - (b) principles and generalisations which give meaning and coherence to those special facts.
2. Critical-thinking skills, in particular, the ability to:
 - (a) identify and define problems suitable for field enquiry;
 - (b) devise a simple programme of enquiry covering planning field study, collecting and recording primary and secondary data;
 - (c) present and discuss findings; and,
 - (d) draw conclusion with reference to the problem.
3. Social and research skills, including the ability to:
 - (a) work independently and in a group;
 - (b) identify relevant information from different sources;
 - (c) collect data in the field;
 - (d) process and present data using appropriate techniques;
 - (e) express ideas clearly and concisely in writing; and,
 - (f) compile and present a study that is objective, logical and neat.
4. A balanced perspective of research outcomes so that the student:
 - (a) has confidence to advance opinions based on the findings; and,
 - (b) is ready to recognise and acknowledge that these findings may differ from what was expected.

GUIDELINES FOR THE CONDUCT OF THE SBA

One of the most important aims of the Field Study is to encourage students to work on geographical topics in which they are particularly interested. Groups of students may work on the same or different aspects of a general topic taken from any system in the syllabus, but individual reports must be submitted.

Students who duplicate or allow the duplication of work submitted in the same or previous years, will be penalised.

The Field Study Report

1. The Field Study Report should be a clear account of a manageable geographical enquiry undertaken in the field.
2. The Field Study Report should be **no more than 1000 words in length (excluding bibliography, illustrations and appendices)**. It can be legibly hand written or technologically aided. In either case, note that marks will be awarded on the same basis as outlined in the criteria on pages 38–44.
3. Each candidate must submit a strategy sheet (see example given in page 51 of the Appendix). The strategy sheet will help the student to identify and carefully define the area for the field study. The teacher is required to:
 - (a) give the Strategy Sheet to each student prior to the commencement of the Field Study;
 - (b) give a deadline for the return of the strategy sheet; and,
 - (c) give critical comments, where necessary, and return the Sheet to the student.
4. The students should be informed that:
 - (a) the Strategy Sheet should be completed and submitted to the teacher by the given deadline and before the field work commences; and,
 - (b) a copy of the final form of the Strategy Sheet must be included in the completed Field Study report.

CONTENT

The report should include:

1. *Table of Contents;*
2. *Introduction;*
3. *Aim of Field Study;*
4. Location of the Field Study – sketch maps and description of the location of the study;
5. Methodology – description of the data collection methods utilised;
6. Presentation of Data (maps, graphs, diagrams, photographs);
7. Analysis of Data;

8. Discussion of Findings;
9. *Conclusion*; and,
10. *Bibliography*.

Information may be used from the Internet, pamphlets and textbooks but should not be copied directly. Any information used from such sources must be appropriately acknowledged and included in the bibliography.

PRESENTATION

1. The report should be submitted in a soft-backed folder of 'Quarto' or 'A4' size.
2. The candidate's name, registration number, name of the school, and the title of the study should be clearly written on the outside of the folder AND on the FIRST page of the report.
3. A Strategy Sheet should be included *on the second page* of the Field Study Report.
4. The table of contents should follow the Strategy Sheet.
5. Illustrations used in the report (maps, tables, graphs, diagrams, photographs) should be suitably chosen, structured and integrated into the report. ***At least, two different types of illustrations should be used.***
6. The presentation, written or typed and graphical, should be neat and legible.
7. The references should be listed in alphabetical order in a bibliography at the end of the report. (See books and websites listed under RESOURCES on pages 46–48 for a recommended format to be used for the bibliography).
8. All maps and other illustrations should be folded to an appropriate size to fit within the cover and be positioned alongside the appropriate point in the text.
9. Appendices (for example, questionnaires) should appear at the end of the report, after the bibliography.
10. The overall presentation should be well-organised demonstrating cohesion, continuity and completeness.
11. The report may be submitted electronically.

The Role of the Teacher in Managing the SBA

Since the School-Based Assessment is an integral part of the evaluation scheme of the syllabus, teachers are expected to guide and monitor students' progress and score the finished product in accordance with the criteria set out in the mark scheme.

The teacher is expected to:

1. advise students on the areas suitable for *field work and the role of the strategy sheet in guiding this process*;
2. *assist in the refinement of the aims of the study*;
3. *approve students' field work plans*;
4. *advise students of the nature of the task and the scope and depth of the data required*;
5. advise students on the availability of resource materials;
6. advise students about the deadlines for completing and submitting the interim drafts and the final report;
7. use different strategies to monitor students' progress and advise them on the quality of their work and ways of improving it, where necessary;
8. employ appropriate techniques to establish authenticity of the student's work. These techniques may include oral questioning and review of the student's progress reports and preliminary drafts;
9. mark the field study reports submitted by students;
10. keep a record of students' marks and submit them together with samples of work as requested by CXC;
11. *ensure that students attach the strategy sheet to their reports*; and,
12. *ensure that the Geography Field Study Individual Mark Sheet (Form GEOG: 6) is submitted along with each sample script.*

IMPORTANT – The teacher is required to:

1. verify that the report submitted by each student is his or her own work;
2. discourage plagiarism and other forms of cheating by students;
3. impose appropriate penalties for any form of cheating; and,
4. advise students of the consequences of plagiarism and other forms of cheating before they commence the writing of the report.

Examples of Areas of Investigation for Field Studies

It is important that the precise focus and scope of the field study be clearly defined. Some examples for field studies are as follows:

1. *investigate the impact of flooding on the people of South Ruimveldt, Georgetown, Guyana. (Specific Objective # 29, Human Systems);*
2. *investigate the measures taken to reduce the impact of hurricanes in Rocky Point, Clarendon, Jamaica. (Specific Objective # 30, Natural Systems);*
3. *investigate to what extent the coastal features along Cove Bay, St Lucy, Barbados, reflect the dominant types of waves, relief and geology. (Specific Objective # 22 (b), Natural Systems);*
4. *investigate the downstream changes in the size and shape of the bedload in Dennery River, St Lucia. (Specific Objective # 21, Natural Systems); and,*
5. *investigate the factors affecting the location of National Flour Mills, Port-of-Spain, Trinidad. (Specific Objective # 12, Human Systems).*

The following timetable illustrates one way in which a teacher can meet these requirements.

FOURTH AND FIFTH YEARS IN SECONDARY SCHOOLS			
	<i>Fourth Year (Term 3)</i>	<i>Fifth Year (Term 1)</i>	<i>Fifth Year (Term 2)</i>
<p>Developmental Activities</p> <ul style="list-style-type: none"> – basic research field techniques (including sampling); – develop field study questions; – identify methods of data collection; – design instruments; – checklist; – observation schedules; – questionnaires. 	<ol style="list-style-type: none"> 1. <i>Teacher initiates discussion of Field Studies with students.</i> 2. <i>Students and teachers decide on provisional topics.</i> 3. <i>Students explore feasibility of methods to be used and identify potential methodologies.</i> 4. <i>Students submit first draft of Strategy Sheet.</i> 5. <i>Students and teacher finalise the questions to be investigated.</i> 6. <i>Students and teacher review Strategy Sheet.</i> 7. <i>Students go into the field, collect data and refine data collection technique.</i> <p><i>N.B. It is strongly recommended that Field Work is completed before the start of Term 1 of Fifth Year.</i></p>	<ol style="list-style-type: none"> 1. <i>Students revise and re-submit Strategy Sheet, if necessary.</i> 2. <i>Teacher and students discuss Field Studies.</i> 3. <i>Teacher reviews required SBA sections and discusses ways in which students process data, draw maps.</i> 4. <i>Students submit first draft of report.</i> 5. <i>Teacher discusses data and findings with students.</i> 6. <i>Students prepare written report.</i> 7. <i>Students submit first draft of written report.</i> 8. <i>Teacher provides feedback to students.</i> 	<p>Students submit their completed reports early in the term (no later than mid-term).</p>
Scoring			Teacher marks reports using the procedures and criteria outlined in the syllabus.

NOTES TO TEACHERS

1. For the Field Study, the teacher may choose the objective(s) from the syllabus or allow the students to do so. The purpose of the fieldwork is to enhance the students' understanding of the objectives. Students must be given an opportunity for self-directed learning in which they can assume responsibility for conducting an enquiry and presenting their findings. The quality of the candidates' work can be improved by:
 - (a) stimulation - of interest in a problem; and,
 - (b) guidance - to help the candidate become more aware of the strategies, concepts, attitudes and principles which are involved in the enquiry.
2. The teacher may provide specific guidance by:
 - (a) encouraging the development of the skills required for illustrating data, drawing and labelling sketch maps and diagrams and using annotated photographs; and,
 - (b) advising on the format for the presentation of the report.
3. Careful planning and sequencing should be given to the timing of tasks or activities in order to:
 - (a) avoid serious clashes with students' workload in other subjects;
 - (b) allow sufficient time for the students to acquire familiarity with appropriate fieldwork techniques;
 - (c) allow adequate time for individual supervision by the teacher; and,
 - (d) ensure that there is sufficient time after students have completed their studies for teachers to meet assessment and moderation deadlines.
4. The marking criteria should be applied consistently to the report of each student.
5. Fractional marks are NOT to be awarded.

Schools should retain copies of the individual mark sheets and the moderation sheet for the samples submitted to CXC.

ASSESSMENT

The marks for the field study reports are to be distributed across profiles as follows:

	Components of Report	Maximum Marks For Profile			Total
		PS	KC	UK	
1.	Table of Contents		1		1
2.	<i>Introduction</i>			2	2
3.	Aim of Field Study		2		2
4.	Location of Field Study	4			4
5.	Methodology	2	2		4
6.	Presentation of Data	4			4
7.	Quality of Data			4	4
8.	Analysis and Discussion			10	10
9.	<i>Conclusion</i>			4	4
10.	Communication of Information		4		4
11.	Bibliography		1		1
	Total	10	10	20	40

CRITERIA FOR MARKING THE FIELD STUDY REPORT

Wherever the length of a **research report exceeds 1000 words**, the teacher is required to impose a penalty of 10 per cent of the score that the candidate achieves on the report.

		GENERAL PROFICIENCY		
		PROFILE DIMENSIONS		
		PRACTICAL SKILLS (PS)	KNOWLEDGE (KC)	USE OF KNOWLEDGE (UK)
	CRITERIA	P1	P2	P3
1.	TABLE OF CONTENTS [1] (a) Accurately presented in the study and properly presented with correct page numbers. (b) No page numbers or more than two inconsistencies.		1 mark 0 mark	
2.	INTRODUCTION [2] (a) Gives clear over view with justification and narrows the research to the area of study. (b) Is not clear or does not provide a focus for the study. (c) Is not suitable for a geographical topic.			2 marks 1 mark 0 mark
3.	THE AIM OF THE STUDY [2] (a) At least ONE aim which <u>clearly</u> defines and focuses the study, stated as a direct or implicit question, is based on the syllabus and allows for collection of primary data. (b) At least ONE aim <u>stated</u> . (c) Not based on the syllabus or the study.		2 marks 1 mark 0 mark	

		GENERAL PROFICIENCY		
		PROFILE DIMENSIONS		
		PRACTICAL SKILLS (PS)	KNOWLEDGE (KC)	USE OF KNOWLEDGE (UK)
	CRITERIA	P1	P2	P3
4.	<p>LOCATION OF THE STUDY [4]</p> <p><i>At least two sketch maps:</i></p> <p>(a) <i>The location map, usually of the territory or a large part of it, showing the position of the study area in relation to one or two major reference points (for example, main town, mountain peak, bays, airport) at a small or atlas scale.</i></p> <p>(b) <i>The site Map showing the study area and characteristics of the immediate environs of the study area at a large scale (1:25 000 or 1:10 000), including for example, elevation, roads, water courses, settlements and other land uses. (Other maps may be added in the body of the report, if needed, to be credited as illustrations).</i></p> <p>(c) <i>Both maps accurately drawn and neat.</i></p> <p><i>Marks to be distributed as follows:</i></p> <p>(a) <i>Between the two maps: indication of scale, directional arrow, key or labels, title (1 mark each to maximum of 4 marks).</i></p> <p>(b) <i>Both Maps. No scale indicated (maximum of 3 marks).</i></p> <p>(c) <i>Only ONE map with scale (maximum of 2 marks).</i></p> <p>(d) <i>Study area not drawn or no study area.</i></p>	<p>4 marks</p> <p>3 marks</p> <p>1–2 marks</p> <p>0 mark</p>		

		GENERAL PROFICIENCY		
		PROFILE DIMENSIONS		
		PRACTICAL SKILLS (PS)	KNOWLEDGE (KC)	USE OF KNOWLEDGE (UK)
	CRITERIA	P1	P2	P3
5.	<p>METHODOLOGY [4]</p> <p>(a) Clear statement on HOW data were collected and an example of the instrument (data record sheet or questionnaire) used or a brief outline of how observations were made and tests done.</p> <p style="text-align: center;">EITHER</p> <p>(i) A clear statement on HOW the data were collected.</p> <p style="text-align: center;">OR</p> <p>(i) Little or no mention of HOW the data were collected, but an example of the instrument used is included.</p> <p>(ii) No statement or a vague statement of HOW data were collected and no example of the instrument used.</p> <p>(iii) A clear statement on WHEN the data were collected – date, month, year (and time if relevant).</p> <p>(iv) A clear statement on WHERE the data were collected.</p> <p>(v) Vague statements for either WHEN or Where</p>	<p>2 marks</p> <p>1 mark</p> <p>1 mark</p> <p>0 mark</p>	<p>1 mark</p> <p>1 mark</p> <p>0 mark</p>	

		GENERAL PROFICIENCY		
		PROFILE DIMENSIONS		
		PRACTICAL SKILLS (PS)	KNOWLEDGE (KC)	USE OF KNOWLEDGE (UK)
	CRITERIA	P1	P2	P3
6.	<p>PRESENTATION OF DATA [4]</p> <p>Illustrations:</p> <p>For example, graphs, tables, labelled photographs, maps.</p> <p>These should be generated from field observation/tested by candidates and not copied from secondary sources (that is, they should be the candidates' original work).</p> <p>(a) Accurate, relevant, neat, clearly labelled, and titled. (Excellent presentation)</p> <p><i>[A maximum of 3 marks will be awarded if copied from secondary sources]</i></p> <p>(b) Accurate, relevant, neat, clearly labelled, and titled. (Good presentation)</p> <p><i>[A maximum of 2 marks will be awarded if copied from secondary sources]</i></p> <p>(c) Fairly accurate, relevant, neat with some attempt at labelling and titling). (Moderate presentation)</p> <p><i>[A maximum of 1 mark will be awarded if copied from secondary sources]</i></p> <p>(d) Lack accuracy, neatness and clarity. (Poor presentation)</p> <p><i>[If copied from secondary sources no marks will be awarded]</i></p>	<p>4 marks</p> <p>(3 marks)</p> <p>3 marks</p> <p>(2 marks)</p> <p>2 marks</p> <p>(1 mark)</p> <p>0 mark</p> <p>(0 mark)</p>		

		GENERAL PROFICIENCY		
		PROFILE DIMENSIONS		
		PRACTICAL SKILLS (PS)	KNOWLEDGE (KC)	USE OF KNOWLEDGE (UK)
	CRITERIA	P1	P2	P3
7.	<p>QUALITY OF DATA [4]</p> <p>(a) Accurate, appropriate and relevant.</p> <p>(b) Comprehensive enough to achieve aim.</p> <p>(c) Some primary data but not enough explanation given.</p> <p>(d) Not enough data collected (no explanation given).</p> <p>(e) NO data.</p> <p>(f) ONLY secondary data (maximum 2 marks).</p>			<p>4 marks</p> <p>3 marks</p> <p>2 marks</p> <p>1 mark</p> <p>0 mark</p> <p>2 marks</p>
8.	<p>ANALYSIS AND DISCUSSION [10] <u>Text (8)</u></p> <p>(a) Very well organised, coherent, points well-developed, well-sequenced and supported by comprehensive data. (Excellent)</p> <p><i>[If there is no evidence of field work a maximum of 4 marks will be awarded]</i></p> <p>(b) Well organised, coherent and points developed, sequenced satisfactorily and supported by some data. (Good)</p> <p><i>[If there is no evidence of field work a maximum of 3 marks will be awarded]</i></p> <p>(c) Fairly well-organised, few points developed, sequenced satisfactorily and supported by data. (Moderate)</p> <p><i>[If there is no evidence of field work a maximum of 2 marks will be awarded]</i></p>			<p>7–8 marks</p> <p>(4 marks)</p> <p>5–6 marks</p> <p>(3 marks)</p> <p>3–4 marks</p> <p>(2 marks)</p>

		GENERAL PROFICIENCY		
		PROFILE DIMENSIONS		
		PRACTICAL SKILLS (PS)	KNOWLEDGE (KC)	USE OF KNOWLEDGE (UK)
CRITERIA		P1	P2	P3
	<p>(d) Shows little relevance or organisation, poor presentation of points, and points not supported by data. (Poor)</p> <p>Integration of Illustrations (2)</p> <p>(a) <i>Well integrated – discussed and placed appropriately near first reference.</i></p> <p>(b) <i>Satisfactorily integrated – discussed not placed appropriately.</i></p> <p>(c) <i>No integration – no reference to illustrations in text (they are mere decorations).</i></p>			<p>1–2 marks</p> <p>2 marks</p> <p>1 mark</p> <p>0 mark</p>
9.	<p>CONCLUSION [4]</p> <p>(a) <i>Is related to the aim of the study, and provides a succinct summary consistent with the data obtained.</i></p> <p>(b) <i>Is related to the aim of the study and provides a summary consistent with data obtained.</i></p> <p>(c) <i>Shows little relation to the aim of the study.</i></p>			<p>4 marks</p> <p>2–3 marks</p> <p>0–1 mark</p>
10.	<p>COMMUNICATION OF INFORMATION [4]</p> <p>(a) No grammatical errors or flaws and extensive use of appropriate geographical terms.</p> <p>(b) Some grammatical errors and good use of appropriate geographical terms.</p> <p>(c) Some grammatical errors and limited use of appropriate geographical terms.</p>		<p>4 marks</p> <p>3 marks</p> <p>2 marks</p>	

		GENERAL PROFICIENCY		
		PROFILE DIMENSIONS		
		PRACTICAL SKILLS (PS)	KNOWLEDGE (KC)	USE OF KNOWLEDGE (UK)
	CRITERIA	P1	P2	P3
	(d) Numerous grammatical errors and poor use of appropriate geographical terms.		1 mark	
	(e) Numerous grammatical errors and no use of appropriate geographical terms.		0 mark	
11.	BIBLIOGRAPHY [1]			
	(a) Alphabetical order by author with title, publisher, place and date for at least two, relevant and up-to-date references.		1 mark	
	(b) Fewer than two references or references written in an inconsistent manner.		0 mark	
12.	Penalty For Exceeding Word Limit	-1 mark (max)	-1 mark (max)	-2 marks (max)
	TOTAL	10	10	20

MODERATION OF SCHOOL-BASED ASSESSMENT

School-Based Assessment Record Sheets are available on CXC's website (www.cxc.org).

All School-Based Assessment Record of marks must be submitted online using the SBA data capture module of the Online Registration System (ORS). A sample of assignments will be requested by CXC for moderation purposes. These assignments will be reassessed by CXC Examiners who moderate the SBA. Teachers' marks may be adjusted as a result of moderation. The Examiners' comments will be sent to schools. All samples must be delivered to the specified marking venues by the stipulated deadlines.

Copies of the students' assignments that are not submitted must be retained by the school until three months after publication by CXC of the examination results.

GUIDELINES FOR THE CONDUCT OF THE PAPER 032, ALTERNATIVE TO SBA

The Paper 032, Alternative to the SBA, assesses the same skills as the SBA itself. The questions are set to assess the skills that the candidates should demonstrate when carrying out a field study.

Candidates are expected to:

1. *formulate a research question or hypothesis;*
2. *design a strategy to collect relevant data by field research;*
3. *say how the field study will be conducted;*
4. *present data in tables or charts;*
5. *evaluate data collected with respect to a question or hypothesis;*
6. *make logical deductions or inferences supported by data;*
7. *draw conclusion with respect to the findings as indicated by question or hypothesis; and,*
8. *present a bibliography.*

Candidates may also be required to respond to scenes, situations or problems that are likely to occur in the conduct of a field study.

◆ RESOURCES

The following is a list of books and other printed material that might be used for teaching Geography for the CSEC Examinations. This list is by no means exhaustive or prescriptive but indicates sources that teachers and students could use as is appropriate.

- Abbott, P. *Natural Disasters: Seventh Edition*, New York: McGraw Hill, 2009.
- Bleasdel, S. *A Photographic Geography of the Caribbean*, Trinidad and Tobago: Caribbean Educational Publishers, 2009.
- Bleasdel, S. et al. *CSEC – New Integrated Geography*, Trinidad and Tobago: Caribbean Educational Publishers, 2008.
- Guinness, P. et al. *Geography for CSEC*, United Kingdom: Nelson Thornes, 2008.
- James, K. J. et al. *Geography for CSEC: Second Edition*, United Kingdom: Nelson Thornes, 2008.
- Johnston, R. J. et al. *The Dictionary of Human Geography: Fifth Edition*, Oxford: Wiley-Blackwell, 2011.
- Lindsay, J. et al. *Volcanic Hazard Atlas of the Lesser Antilles*, Trinidad and Tobago, Seismic Research Unit of the University of the West Indies, 2005.
- Mayhew, S. *A Dictionary of Geography*, Oxford: Oxford University Press, 2010.
- Morrissey, M. *Atlas for the Caribbean Examinations: Third Edition*, London: Pearson Longman Education, 2011.
- Nagle, G. and Spencer, K. *AS AND A Level Geography through Diagrams*, Oxford: Oxford University Press, 2005.
- Niles, J. *Modern Caribbean Geography*, Oxford: Macmillan Caribbean, 2005.
- Ottley, J. and Gentles, M. *Longman Geography for CSEC*, United Kingdom: Pearson Longman, 2010.
- Reardon, G.J and Bidaisee, S. *The Essential Guide to Map Reading*, Singapore: Marshall Cavendish Education, 2005.
- Ross, S. and Rocke, J. *Essential Mapwork Skills for the Caribbean*, United Kingdom: Nelson Thornes, 2013.
- Ross, S. et al *Geography for CSEC – Caribbean Examinations Council Study Guide*, United Kingdom: Nelson Thornes, 2012.
- Sealy, N. *Geography for CSEC Examinations*, London: Macmillan Caribbean Publishers, 2010.
- Wilson, M. *The Caribbean Environment, Fully Revised Edition*, Oxford: Oxford University Press, 2007.

Websites

1. <http://www.bbc.com/news/world-asia-22907307>
2. <http://www.brazilintl.com/agsectors/sugarcane/map-sugarcane/map-sugarcane.htm>
3. <http://www.cdc.gov/healthyouth/evaluation/pdf/brief12.pdf>
4. www.cdema.org
5. http://education.nationalgeographic.com/education/geographic-skills/1/?ar_a=1
6. http://en.wikiversity.org/wiki/Tourism_industry
7. <http://geocurrents.info/population-geography/indias-plummeting-birthrate-a-television-induced-transformation>
8. <http://www.geography.learnontheinternet.co.uk/topics/popn.html>
9. <http://www.geohive.com/>
10. http://geology.about.com/od/volcanoes/a/aa_nuts_volcism.htm
11. <https://www.gov.uk/government/policies/adapting-to-climate-change>
12. <http://www.ibtimes.com/indias-population-will-grow-while-chinas-will-begin-decline-2028-making-india-worlds-most-populous>
13. <http://www.learner.org/interactives/rockcycle/diagram.html>
14. <http://www.mathsisfun.com/data/pie-charts.html>
15. www.nationalgeographic.com/
16. <http://www.notesmaster.com/>
17. <http://www.population.gov.ng/index.php/84-news/latest/106-nigeria-over-167-million-population-implications-and-challenges>
18. <http://www.prb.org/>
19. <http://www.sciencedaily.com/>
20. <http://www.slideshare.net/Adrienna/aec-2015-singapore-food-manufacturing-industry>
21. <http://www.statcan.gc.ca/edu/power-pouvoir/ch9/pie-secteurs/5214826-eng.htm#a2>
22. http://sugarcane.org/resourcelibrary/studies/evidences_on_sugarcane_expansion_and_agri_cultural_land_use_changes_in_brazil_1206.pdf

23. <http://theworldoutline.com/2013/03/the-impact-of-chinas-one-child-policy/>
24. https://www.wmo.int/pages/index_en.html
25. <http://worldpopulationreview.com/countries/nigeria-population/>
26. <http://www2.le.ac.uk/offices/ld/resources/numeracy/numerical-data>

◆ GLOSSARY OF BEHAVIOURAL VERBS USED IN THE GEOGRAPHY EXAMINATIONS

Analyse	Examine key factors and constituent parts critically and in detail and suggest possible results/outcomes.
Assess	Present possible explanations or reasons for the importance of a particular structure, relationship or process and say what would be the appropriate explanation.
Classify	Place into groups according to observable characteristics, attributes, features or qualities.
Compare/Contrast	Identify and describe/examine similarities and differences between two elements/concepts/entities of the same or different kinds.
Define	Provide a brief statement giving the precise meaning of or outlining the nature, properties or essential qualities of a term, concept, and principle.
Describe	Provide statements of the features or characteristics of an object or process.
Differentiate/Distinguish	Provide an explanation of the differences between entities which allow them to be placed in distinct groups.
Discuss	Give a careful explanation of a concept or statement by providing a definition and explaining the arguments for or against it.
Draw	Make a line representation of specimens, objects or features to show accurate relationship between the parts.
Evaluate	Explain the evidence for or against a given topic or concept and come to a conclusion.
Explain	Provide detailed, logical statements which make clear what happened, how it happened and why it happened.
Locate/Find	Establish the position of a place by giving its coordinates.
OR	
	Illustrate the position of a place by a sketch map showing its position in relation to other features and or places or describe this in words.
Identify	Point out or describe distinguishing features (without giving explanation).
Illustrate	Show clearly by using appropriate examples, diagrams or sketches.

Label	Identify structures or parts with the use of pointers.
List	Itemise answers concisely and in order if specified.
Measure	Use an appropriate instrument or unit of measure to take accurate quantitative readings.
Name	Provide accurate labels, words or statements.
Outline	Give basic steps, organise information concisely to provide main points or features only.
Plan	Provide an outline of steps to be followed or the scheme of arrangements.
Sketch	Give a brief general account of or provide an outline.
State	Provide a short concise answer without explanation; specify the facts of a case.
Suggest	Give possible reasons for consideration providing a sound explanation for events and statements.

GEOGRAPHY FIELD STUDY STRATEGY SHEET	
To be completed by <u>15 March</u> of the year of the examination (but preferably in Fourth Year). Make a duplicate copy of this sheet. Your teacher will return a copy to you.	
CANDIDATE'S NAME: William Smith	REGISTRATION NUMBER ----- CLASS: 4A
GENERAL TOPIC OF INTEREST: Coastal Landforms	
1.	(a) POSSIBLE QUESTION TO BE INVESTIGATED: <i>To what extent do the coastal features along Las Cuevas Bay, Trinidad, reflect the dominant types of waves? (Specific Objective#22 (b), Natural Systems).</i> (b) Location of Study Area: State the name of area of study; show on maps. (<i>Las Cuevas, North Coast, Trinidad and Tobago</i>).
STRATEGY	
A. What is the Aim of your Study?	<i>To investigate the role of waves in the formation of features in the area of study.</i>
B. How will you obtain data?	<ol style="list-style-type: none"> 1. <i>Review maps to measure the width of the bay and its indentation.</i> 2. <i>Field trip to the area of study to (a) measure wave frequency and beach width; (b) determine the direction in which beach sediments move; (c) estimate wave energy; (d) note relief, geology and features.</i> 3. <i>Draw sketch maps and take photographs.</i> 4. <i>Review secondary sources: for example, guides on coastal field work.</i>
C. Resources:	<i>Maps, record sheet, measuring tape, floats, stop watch, camera, ranging pole, painted pebbles.</i>
D. How do you intend to present the data and findings in your report?	<ol style="list-style-type: none"> 1. <i>Location maps of the area of study: Las Cuevas, North Coast, Trinidad and Tobago (as shown on the map).</i> 2. <i>Illustrate data using tables and graphs.</i> 3. <i>Illustrate with annotated photographs.</i>
E. Analyse and Discuss Data:	<i>Discuss relationship among wave processes, relief and geology, and landforms in the study area.</i>
ANTICIPATED CHALLENGES:	
<i>Tides, safety measures.</i>	
POSSIBLE SOLUTIONS:	
<i>Check tidal schedules; ensure there is adequate assistance and safety gear for students and teachers.</i>	
Teacher's Name ----- Teacher's Signature -----	

CARIBBEAN EXAMINATIONS COUNCIL

Caribbean Secondary Education Certificate®



GEOGRAPHY

Specimen Papers and Mark Schemes/Keys

Specimen Papers: - Paper 01
Paper 02
Paper 032

Mark Schemes and Keys: - Paper 01
Paper 02
Paper 032



TEST CODE **01225010**

SPEC 2015/01225010

CARIBBEAN EXAMINATIONS COUNCIL
CARIBBEAN SECONDARY EDUCATION CERTIFICATE®
EXAMINATION

GEOGRAPHY

SPECIMEN PAPER

Paper 01 – General Proficiency

1 hour 30 minutes

READ THE FOLLOWING INSTRUCTIONS CAREFULLY.

1. This test consists of 60 items. You will have 1 hour and 30 minutes to answer them.
2. In addition to this test booklet, you should have an answer sheet.
3. Each item in this test has four suggested answers lettered (A), (B), (C), (D). Read each item you are about to answer and decide which choice is best.
4. On your answer sheet, find the number which corresponds to your item and shade the space having the same letter as the answer you have chosen. Look at the sample item below.

Sample Item

Hurricanes in the Caribbean area are MOST likely to occur during

- (A) February–April
- (B) April–June
- (C) July–September
- (D) October–February

Sample Answer



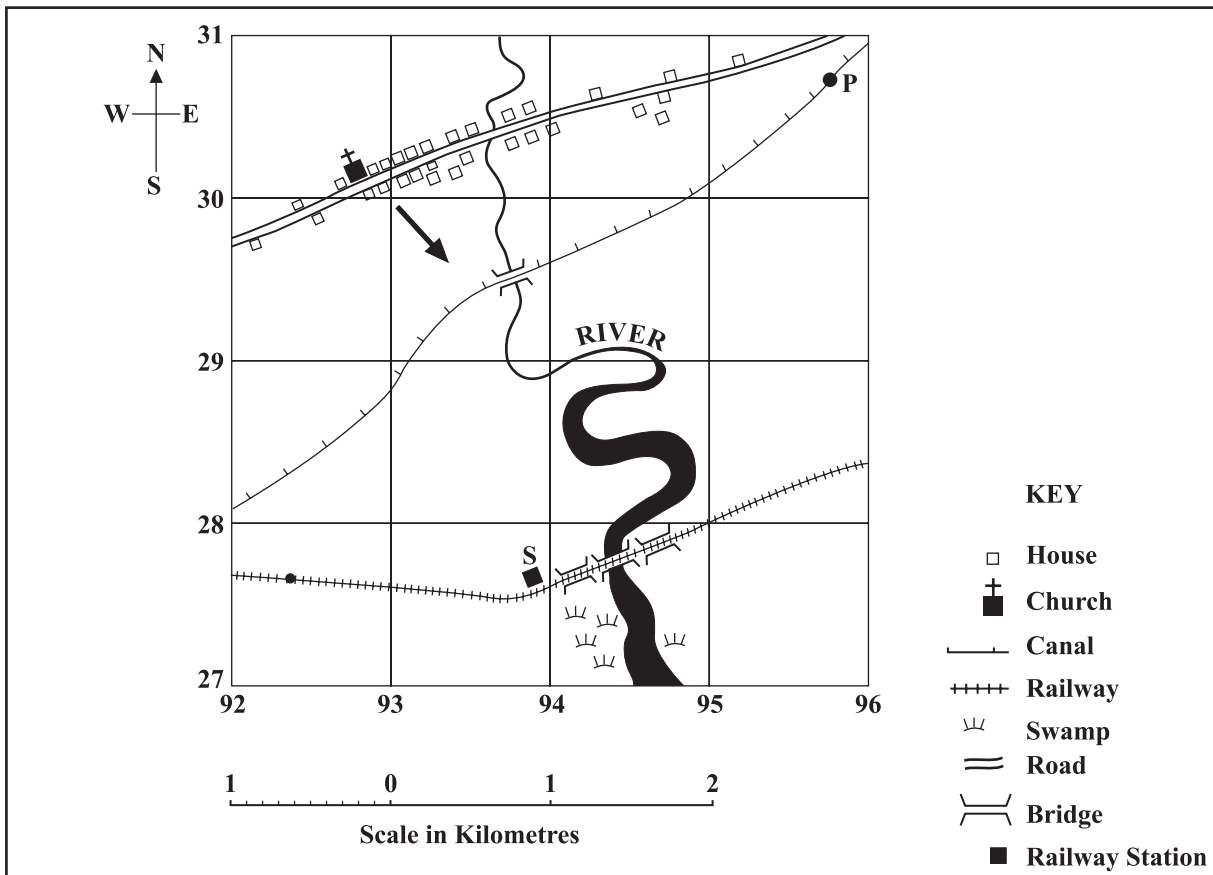
The correct answer to this item is “July–September”, so (C) has been shaded.

5. If you want to change your answer, erase it completely and fill in your new choice.
6. When you are told to begin, turn the page and work as quickly and as carefully as you can. If you cannot answer an item, go on to the next one. You may return to that item later.

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO.

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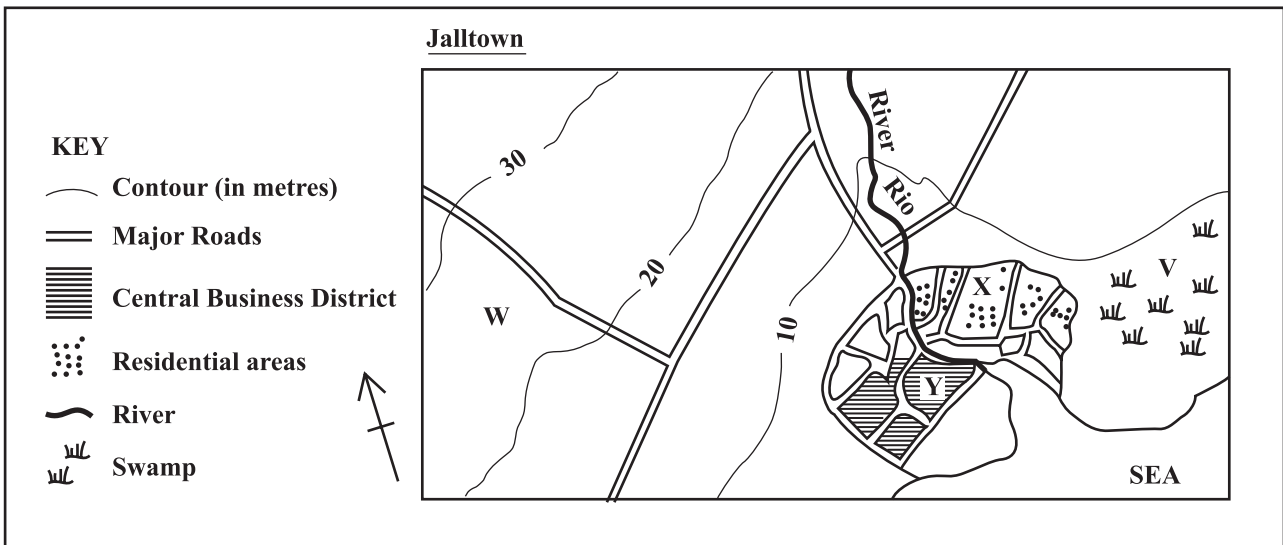
Items 1–5 refer to the following diagram showing a river and its environs.



1. Which of the following gives the location of Point P?
(A) 307957
(B) 305954
(C) 954305
(D) 957307
2. The straight-line distance, in km, between the church and the railway station is
(A) 2.2
(B) 2.8
(C) 3.0
(D) 3.8
3. In which direction is the arrow on the map pointing?
(A) Southeast
(B) Southwest
(C) East-southeast
(D) South-southeast
4. Which of the following man-made features runs through Point P?
(A) Road
(B) Canal
(C) Railway
(D) Swamp
5. The settlement form of the area represented on the map is BEST described as being
(A) linear
(B) isolated
(C) nucleated
(D) dispersed

GO ON TO THE NEXT PAGE

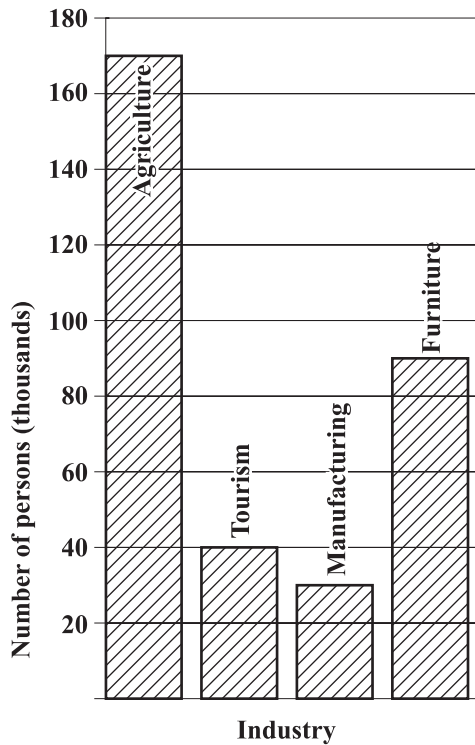
Items 6–10 refer to the following diagram extract on a scale of 1 : 10 000



6. Which of the following features of Jalltown are the BEST reasons for its location?
- I. It is near to the swamp.
 - II. It is on flat land.
 - III. It has a supply of fresh water.
- (A) I and II only
(B) I and III only
(C) II and III only
(D) I, II and III
7. A prospective buyer of a house is BEST advised to search in area
- (A) V
(B) W
(C) X
(D) Y
8. What is the general direction of flow of the river shown in the map above?
- (A) West to east
(B) East to west
(C) South to north
(D) North to south
9. The height of the contour interval is
- (A) 5 m
(B) 10 m
(C) 20 m
(D) 30 m
10. In which area is land value likely to be the HIGHEST?
- (A) V
(B) W
(C) X
(D) Y
-
11. What is the Standard Time in Town X located at 22 °E when it is 10 a.m. at Greenwich (0°)?
- (A) 9.00 a.m.
(B) 9.30 a.m.
(C) 10.30 a.m.
(D) 11.00 a.m.

GO ON TO THE NEXT PAGE

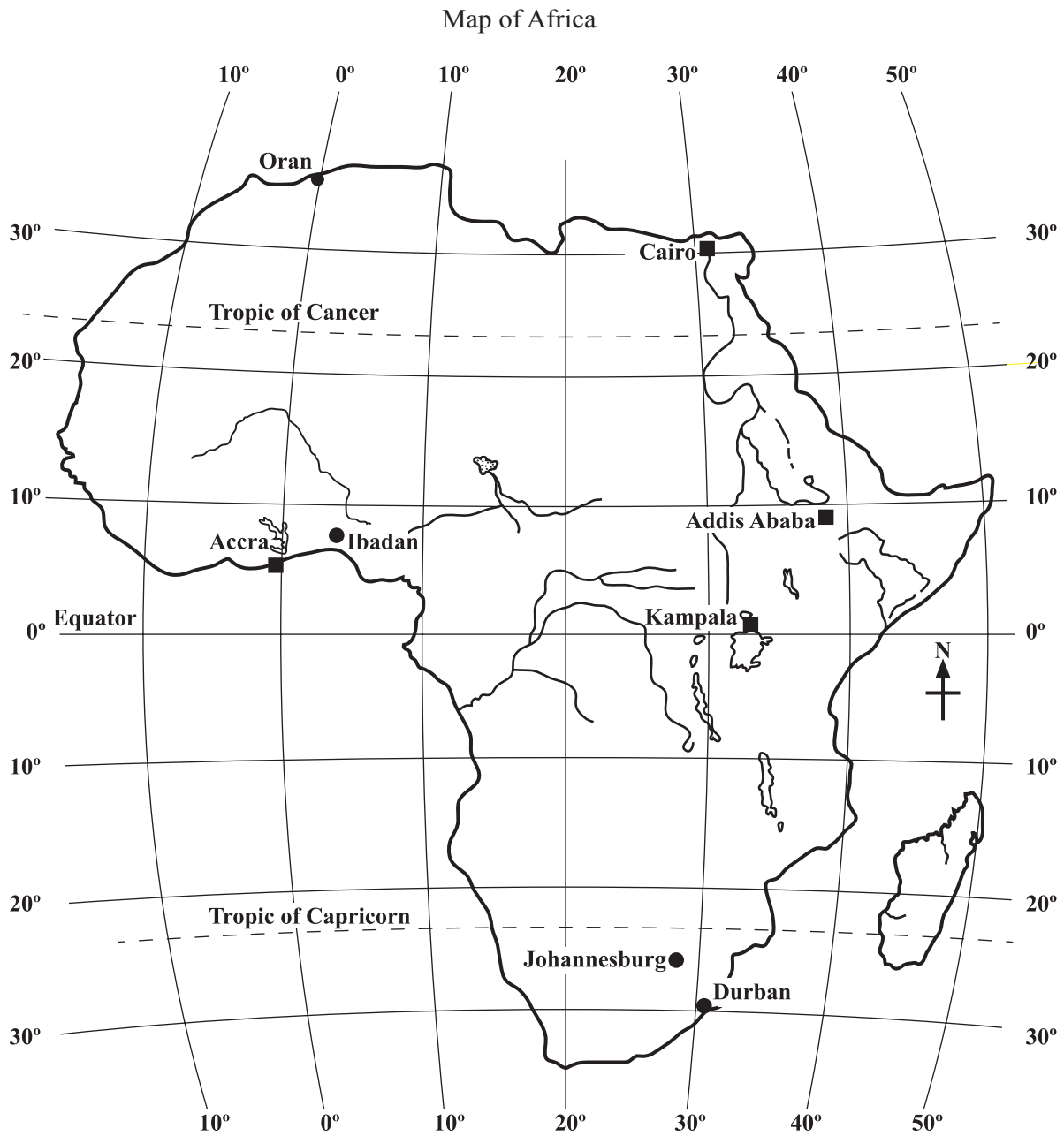
Items 12–14 refer to the following bar graph which shows employment figures for four industries in a Caribbean territory.



12. Which of the following sectors had an employment figure in excess of 50 000?
- (A) Furniture and tourism
 - (B) Agriculture and furniture
 - (C) Tourism and manufacturing
 - (D) Furniture and manufacturing
13. Which of the following statements is NOT true of the data given in the graph?
- (A) The manufacturing sector employs the least number of people.
 - (B) More than one-half of the entire business sector is employed in agriculture.
 - (C) The tourism sector employs less than half of the number of people employed in furniture.
 - (D) The two sectors, furniture and tourism, employ more people than agriculture.
14. What is the TOTAL number of persons employed across the four industries?
- (A) 310 000
 - (B) 320 000
 - (C) 330 000
 - (D) 350 000

GO ON TO THE NEXT PAGE

Items 15–16 refer to the following map of Africa.



15. What is the approximate position of the city of Durban?

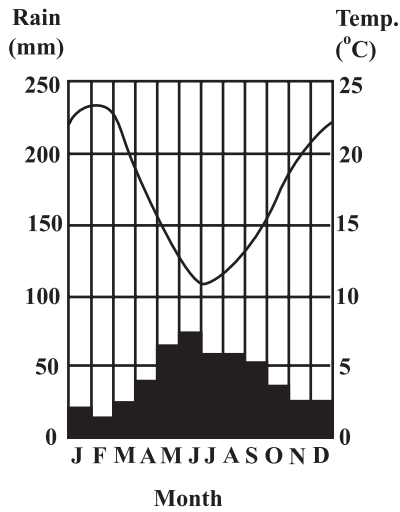
- (A) Latitude 30 °S, longitude 31 °E
- (B) Latitude 31 °S, longitude 29 °E
- (C) Latitude 29 °N, longitude 29 °W
- (D) Latitude 29 °N, longitude 31 °W

16. Which of the following cities lie north of 0° latitude?

- I. Accra
 - II. Oran
 - III. Johannesburg
- (A) I only
 - (B) II only
 - (C) III only
 - (D) I and II only

GO ON TO THE NEXT PAGE

Items 17–19 refer to the following rainfall and temperature graph for the year 2014.



17. The TWO wettest months of the year indicated in the graph are

- (A) May and June
- (B) July and August
- (C) January and February
- (D) November and December

18. The annual range of temperature is approximately

- (A) 3 °C
- (B) 5 °C
- (C) 12 °C
- (D) 19 °C

19. Which of the following statements is true?

- (A) There are two dry seasons.
- (B) The hottest months of the year are also the driest.
- (C) The hottest months of the year are also the wettest.
- (D) There is little variation in rainfall throughout the year.

20. Isobars are lines drawn on a map which join places experiencing the same

- (A) annual rainfall
- (B) relative humidity
- (C) atmospheric pressure
- (D) mean annual temperature

21. The formation of fold mountains is NOT explained by

- (A) upwelling of magma to form new crust
- (B) deposition of sediments in a shallow basin
- (C) compression of sediments by colliding plates
- (D) elevation of sediments into anticlines and synclines

22. Which of the following descriptions is NOT true of basic lava?

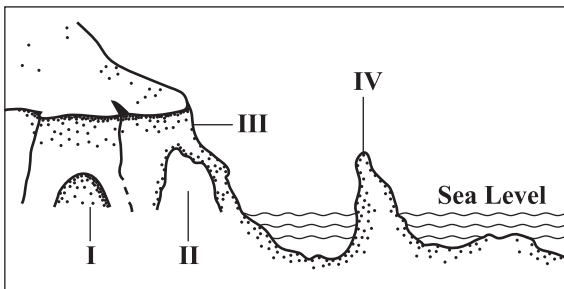
- (A) Flows easily
- (B) Erupts explosively
- (C) Forms a shield volcano
- (D) Has high percentage of iron

23. At which of the following locations does sea floor spreading occur?

- (A) Mid-Atlantic ridge
- (B) Windward Passage
- (C) Floor of the Puerto Rico trench
- (D) Junction of the Caribbean and Cocos plates

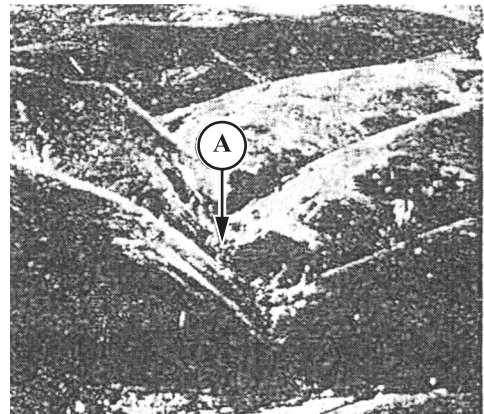
24. Which of the following relief features results from plate tectonic activity in the Caribbean?
- (A) Aripo Plains in Trinidad
 - (B) Palisadoes Spit in Jamaica
 - (C) Soufrière volcano in St Vincent
 - (D) Rupununi Savannas in Guyana

Items 25–26 refer to the following diagram.



25. What is the CORRECT order of the features identified as I, II, III and IV?
- (A) Cave, arch, cliff, stack
 - (B) Arch, cave, stack, cliff
 - (C) Stack, cliff, arch, cave
 - (D) Cliff, cave, stack, arch
26. Which of the following processes is NOT important in the formation of the features labelled I, II, III and IV?
- (A) Abrasion
 - (B) Corrosion
 - (C) Deposition
 - (D) Hydraulic action

Items 27–28 refer to the following photograph.



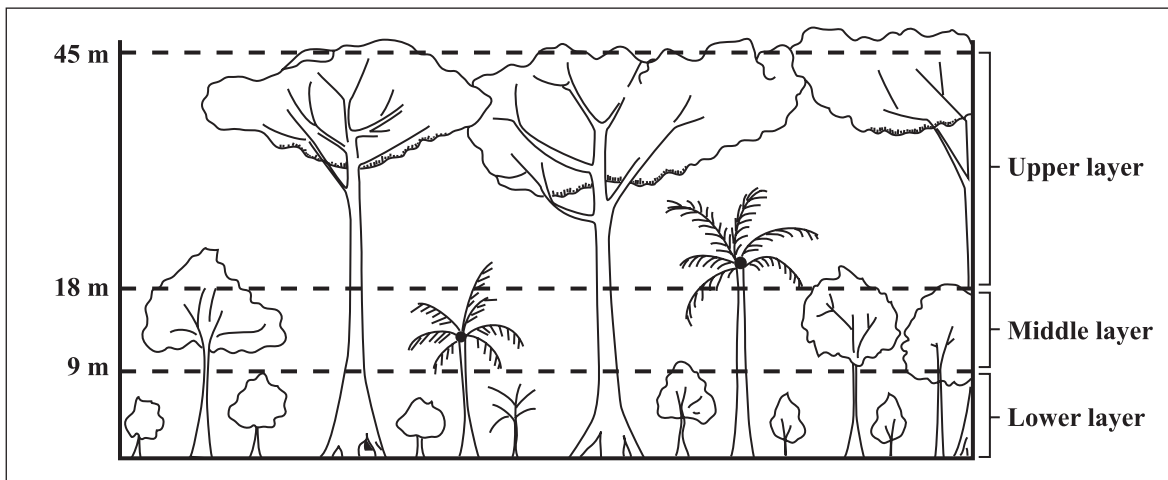
27. The valley labelled A was MOST likely formed as a result of
- (A) folding
 - (B) faulting
 - (C) running water
 - (D) mass movement
28. Which of the following features have formed by the sides of the valley?
- (A) Terraces
 - (B) Meanders
 - (C) Knick-points
 - (D) Interlocking spurs
29. The process of exfoliation may be defined as the
- (A) peeling off of the outer layers of rocks
 - (B) splitting of rocks into rectangular blocks
 - (C) movement of rocks due to the action of rivers
 - (D) disintegration of rocks by root penetration into crevices

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30. Which of the following conditions may result from man's utilization of the natural environment?
- I. Soil erosion
 - II. Pollution
 - III. Depletion of natural resources
- (A) I and II only
 - (B) I and III only
 - (C) II and III only
 - (D) I, II and III
31. Which of the following statements is NOT true about waves?
- (A) They are caused by wind blowing over the surface of the water.
 - (B) On nearing the beach, the speed of waves slackens and the tops are thrown forward.
 - (C) On approaching the coast, the body of water forming the waves increases rapidly.
 - (D) The stronger the wind and the greater the fetch, the more powerful the waves are.
32. It is MOST likely that recent hurricanes in the Caribbean have caused fewer deaths because
- (A) families no longer live in unsafe areas
 - (B) many hurricanes have occurred during the day
 - (C) the majority of the population goes to storm shelters
 - (D) there have been improved forecasts of hurricane tracks
33. The process by which water vapour cools and forms water droplets is termed
- (A) convection
 - (B) evaporation
 - (C) precipitation
 - (D) condensation
34. Which of the following features is the MOST important difference between weather and climate?
- (A) Time
 - (B) Rainfall
 - (C) Location
 - (D) Temperature
35. Tropical or easterly waves in the Caribbean are MOST common during the months
- (A) June to July
 - (B) May to October
 - (C) December to March
 - (D) November to December
36. The temperature suddenly drops and wind speed increases; the sky gradually becomes overcast and there is a slight drizzle.
- What weather system produces the weather conditions described above?
- (A) Cold front
 - (B) Hurricane
 - (C) Easterly wave/tropical wave
 - (D) Inter-tropical convergence zone
37. Which of the following processes is at work in the concentration of minerals in the lower layers of a soil profile?
- (A) Erosion
 - (B) Leaching
 - (C) Capillarity
 - (D) Illuviation
38. Basic lava extruded on the surface tends to form
- (A) sills
 - (B) dykes
 - (C) shields
 - (D) domes

GO ON TO THE NEXT PAGE

Item 39 refers to the following diagram which shows the three layers of plants in an equatorial forest.



39. Some of the trees which grow in the lower layer are adapted to growing in
- (A) low humidity
 - (B) shaded areas
 - (C) bright sunlight
 - (D) windy conditions
-
40. Which of the following features is formed by the deposition of rivers?
- (A) Solution
 - (B) Traction
 - (C) Saltation
 - (D) Suspension
41. Which of the following features determines the presence of inorganic material in a soil?
- (A) Relief
 - (B) Climate
 - (C) Vegetation
 - (D) Parent material
42. Which of the following factors are causes of high population density in the Caribbean?
- I. Entertainment options
 - II. Availability of jobs
 - III. The presence of a major port
- (A) I and II only
 - (B) I and III only
 - (C) II and III only
 - (D) I, II and III

GO ON TO THE NEXT PAGE

43. Which of the following areas would have the HIGHEST population density in the daytime?

- (A) A squatter settlement
- (B) A rural fishing village
- (C) An urban residential community
- (D) An urban commercial centre

44. The following table shows birth and death rates for Country A in 2 000.

Birth Rate per 1000	Death Rate per 1000
20	15

For 2 000, the natural increase in Country A is

- (A) 0.005%
- (B) 0.5%
- (C) 3.5%
- (D) 5.0%

45. Which of the following terms BEST explains the rapid growth in size of the LARGEST urban centres in the Caribbean?

- (A) An ageing population
- (B) An increase in the number of immigrants
- (C) High birth rates and low infant mortality
- (D) The migration of persons from rural areas

46. Which of the following results from tropical deforestation?

- (A) Lumbering
- (B) Loss of flora
- (C) Increased fauna
- (D) Increased underground water

47. Which of the following statements is true of subsistence farming?

- (A) Individual farms are quite small.
- (B) Yields per farm are generally high.
- (C) Large amounts of fertilizers are used on the farm.
- (D) Crop cultivation is not as important as animal rearing.

48. Commercial pastoral farming in Caribbean territories is LEAST likely to take place near urban settlements because

- (A) the soil in these locations is infertile
- (B) there are no large areas of land for grazing
- (C) there is easy transmission of animal diseases to humans
- (D) the size of the population is too small to support this activity

49. An increase in the proportion of a country's population living in towns is referred to as

- (A) urbanization
- (B) urban sprawl
- (C) sub-urbanization
- (D) population growth

50. Rapid urbanization in Caribbean countries usually results in

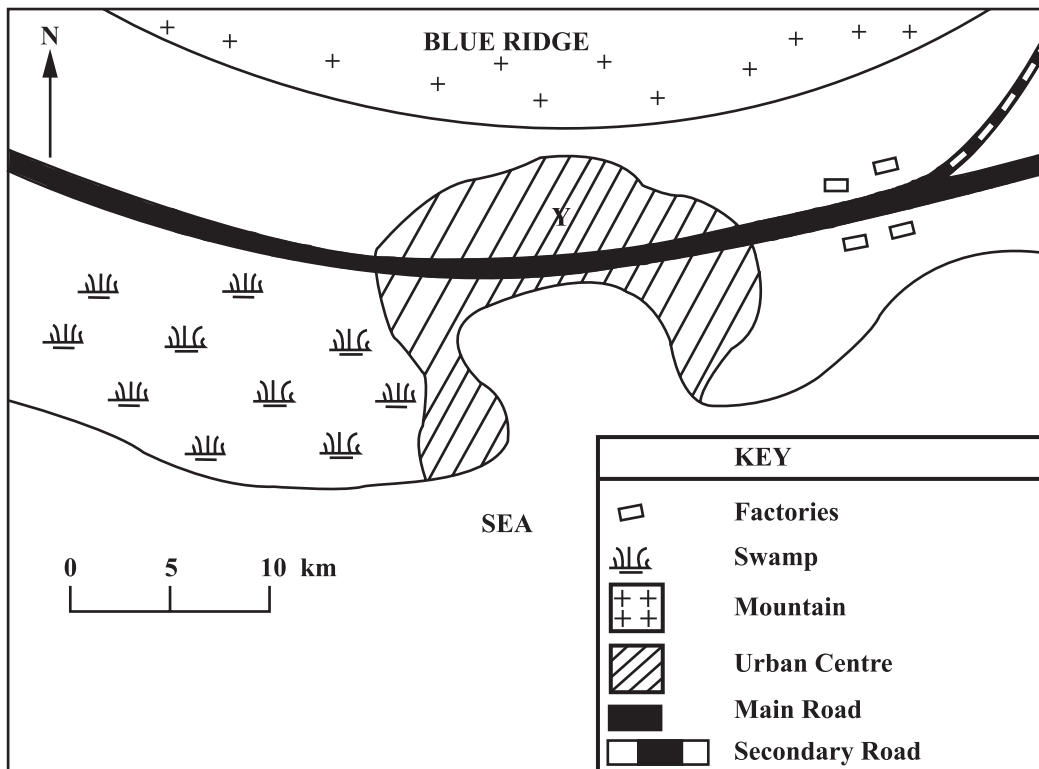
- (A) housing shortages in the cities
- (B) increased employment in the cities
- (C) decreased foreign exchange earnings
- (D) improvement in the standard of living

51. A farmer is involved in planting sugar cane which he supplies to a factory. In which of the following industries is he involved?

- (A) Tertiary
- (B) Secondary
- (C) Primary
- (D) Quaternary

GO ON TO THE NEXT PAGE

Items 52–53 are based on the following sketch map.



52. Which of the following features BEST explain why the urban centre in the sketch map above is located at Y?

- I. The presence of flat land
- II. The nearness to the mountains
- III. The presence of a sheltered harbour

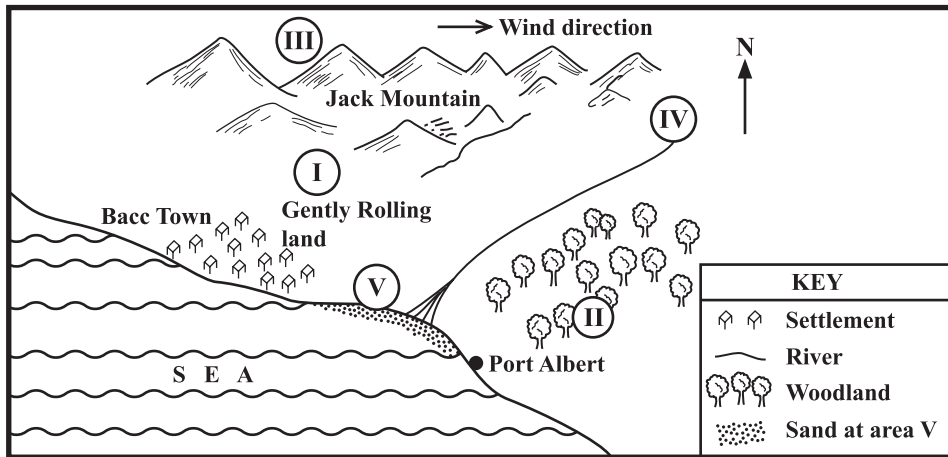
- (A) I and II only
- (B) I and III only
- (C) II and III only
- (D) I, II and III

53. In which direction is the urban centre MOST likely to expand?

- (A) East
- (B) West
- (C) North
- (D) South

GO ON TO THE NEXT PAGE

Items 54–55 are based on the following sketch map, drawn to a scale of 1 : 50 000.



54. Which of the following areas is MOST likely to be developed as a tourist resort?

- (A) I
- (B) II
- (C) IV
- (D) V

55. Which of the following areas would be BEST for locating a new factory in order to minimize the effects of air pollution?

- (A) IV
- (B) III
- (C) II
- (D) I

56. In a mountainous region severely eroded because of deforestation, what are the possible soil conservation methods that could be put in place?
- (A) Strip cropping and crop rotation
 - (B) Agro-forestry and strip cropping
 - (C) Crop rotation and reforestation
 - (D) Reforestation and contour ploughing
57. Agriculture is an important economic activity in the Caribbean because
- (A) it is heavily mechanized
 - (B) it employs a significant percentage of people
 - (C) government allocates a significant portion of its budget to the sector
 - (D) it accounts for a significant portion of the foreign exchange earnings
58. Many garment industries in the Caribbean are closing business MAINLY because
- (A) the demand for clothing is falling
 - (B) cheaper imports are entering the region
 - (C) the rates for wages are lower in the region
 - (D) many women refuse to work in the factories
59. In the long-term, volcanic activity can be beneficial to a country by
- I. causing people to relocate to new areas in the country
 - II. providing sources of energy to be used for electricity needs
 - III. bringing new materials to the earth's surface which produce rich soils
- (A) I only
 - (B) I and II only
 - (C) I and III only
 - (D) II and III only
60. In advance of the approach of a hurricane, risk to lives can be reduced by
- I. relocating people to shelters
 - II. encouraging people to stock up on fresh supplies
 - III. evacuating people living in low-lying areas
- (A) I and II only
 - (B) I and III only
 - (C) II and III only
 - (D) I, II and III

END OF TEST

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**GEOGRAPHY
GENERAL PROFICIENCY**

SPECIMEN 2015

Item No.	Key
1	D
2	B
3	A
4	B
5	A
6	C
7	C
8	D
9	B
10	D
11	D
12	B
13	D
14	C
15	A
16	C
17	A
18	C
19	B
20	C
21	A
22	B
23	A
24	C
25	A
26	C
27	C
28	D
29	A
30	D

Item No.	Key
31	C
32	D
33	D
34	A
35	B
36	A
37	D
38	C
39	B
40	B
41	D
42	C
43	D
44	A
45	D
46	B
47	A
48	B
49	A
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59	D
60	B

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SUBJECT GEOGRAPHY – Paper 02

PROFICIENCY GENERAL

REGISTRATION NUMBER

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SCHOOL/CENTRE NUMBER

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NAME OF SCHOOL/CENTRE

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CANDIDATE’S FULL NAME (FIRST, MIDDLE, LAST)

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DATE OF BIRTH

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EXAMINATION

GEOGRAPHY

Paper 02 – General Proficiency

2 hours 30 minutes

SPECIMEN PAPER

READ THE FOLLOWING INSTRUCTIONS CAREFULLY.

1. This paper consists of FOUR compulsory questions.
2. Write your answers in the spaces provided in this booklet.
3. Do NOT write in the margins.
4. You may use a silent, non-programmable calculator to answer questions.
5. You may use geometrical instruments.
6. If you need to rewrite any answer and there is not enough space to do so on the original page, you must use the extra lined page(s) provided at the back of this booklet. **Remember to draw a line through your original answer.**
7. **If you use the extra page(s) you MUST write the question number clearly in the box provided at the top of the extra page(s) and, where relevant, include the question part beside the answer.**

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO.

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You MUST answer ALL questions.

1. Study the map extract of Nevis, on the scale of 1:25 000 (**provided as an insert**), and answer the following questions.

(a) (i) State the six-figure grid reference of the ruin on the coast at Newcastle Bay.

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(2 marks)

(ii) Complete the following statement.

On this map, 4 cm represents
(1 mark)

(iii) What is the length of the runway (the inner rectangle) at Newcastle Airport, to the NEAREST 100 metres?

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(2 marks)

(iv) What is the grid bearing of the boundary between the parishes of St Thomas Lowland and St James Windward at the point where this boundary crosses easting 37 heading inland?

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(2 marks)

(v) What is the compass direction of Hurricane Hill (near easting 35) from the runway at Newcastle Airport?

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(1 mark)

(vi) State FOUR characteristics of the drainage in the area north of northing 99.

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- (b) Figure 1 is a grid showing part of the map of Nevis drawn to the same scale as the map. The grid lines are numbered to identify the area.

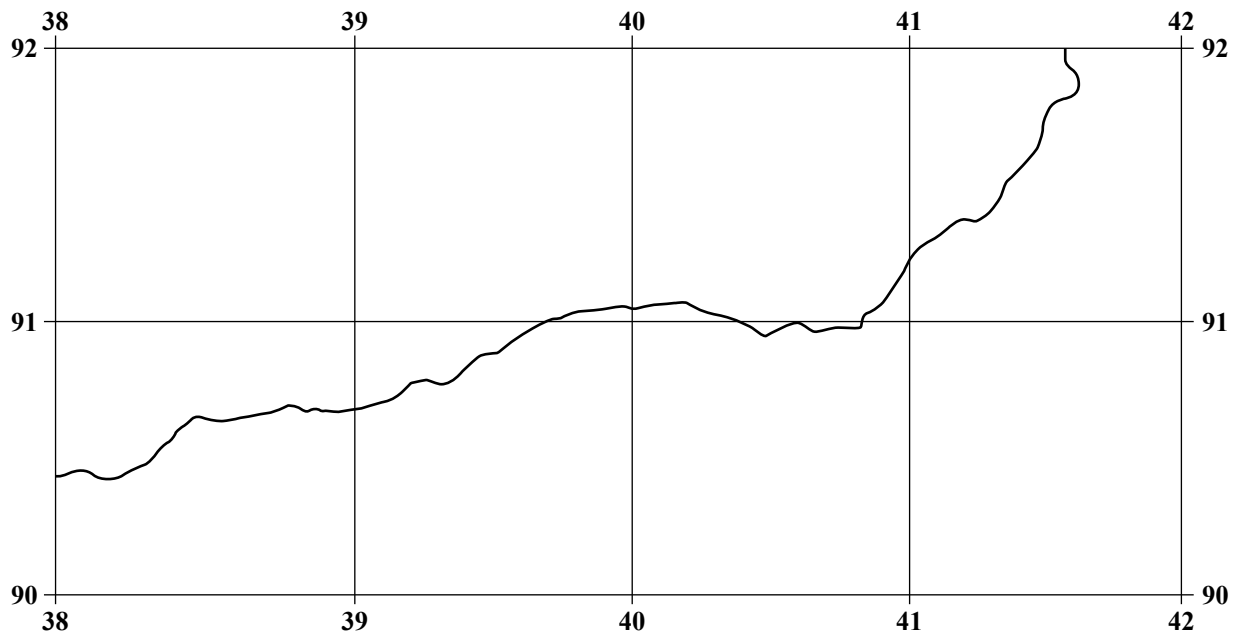


Figure 1. Part of Nevis coastline

On the grid,

- (i) insert a beach **(1 mark)**
- (ii) insert an area of cliffs on the coast **(1 mark)**
- (iii) place the letter P to show the position of a peak 500 feet high **(1 mark)**
- (iv) show the area of cultivation **(1 mark)**

GO ON TO THE NEXT PAGE

- (c) Using evidence from the map, give THREE reasons to explain the distribution of the areas of cultivation and plantation in Nevis.

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(6 marks)

- (d) List THREE features of the relief around Charlestown between northings 94 and 95 and eastings 32 and 34.

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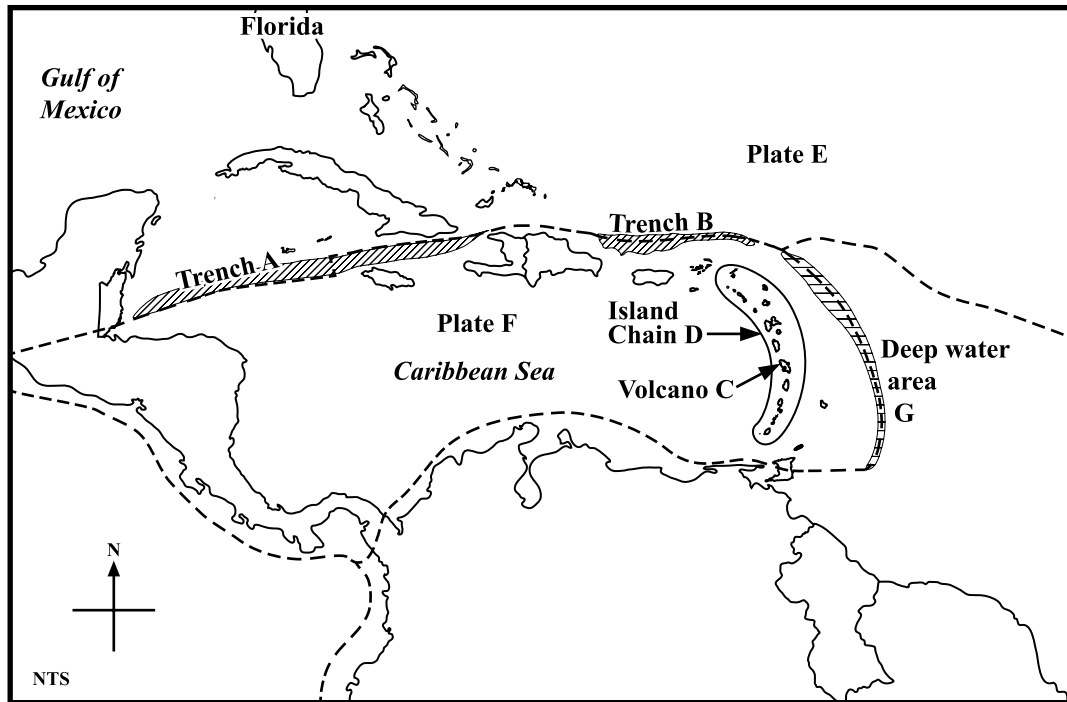
(3 marks)

Total 25 marks

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2. (a) Figure 2 is a diagram of the Caribbean showing the position of three plates and features produced by movement of the plates. Study the diagram carefully and use the information to answer the questions that follow.



Key	
	Plate boundary
	Trench
	Deep water area G

Figure 2. Diagram of three Caribbean plates

Name any FIVE of the features labelled A to G. (Note: only the first five answers will be marked).

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(5 marks)

GO ON TO THE NEXT PAGE

- (b) (i) Describe ONE way in which oceanic trenches can be formed.

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(4 marks)

- (ii) Describe ONE way in which a volcano can be formed.

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(4 marks)

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- (c) (i) Explain THREE conditions which influence the formation of a delta on the coast.

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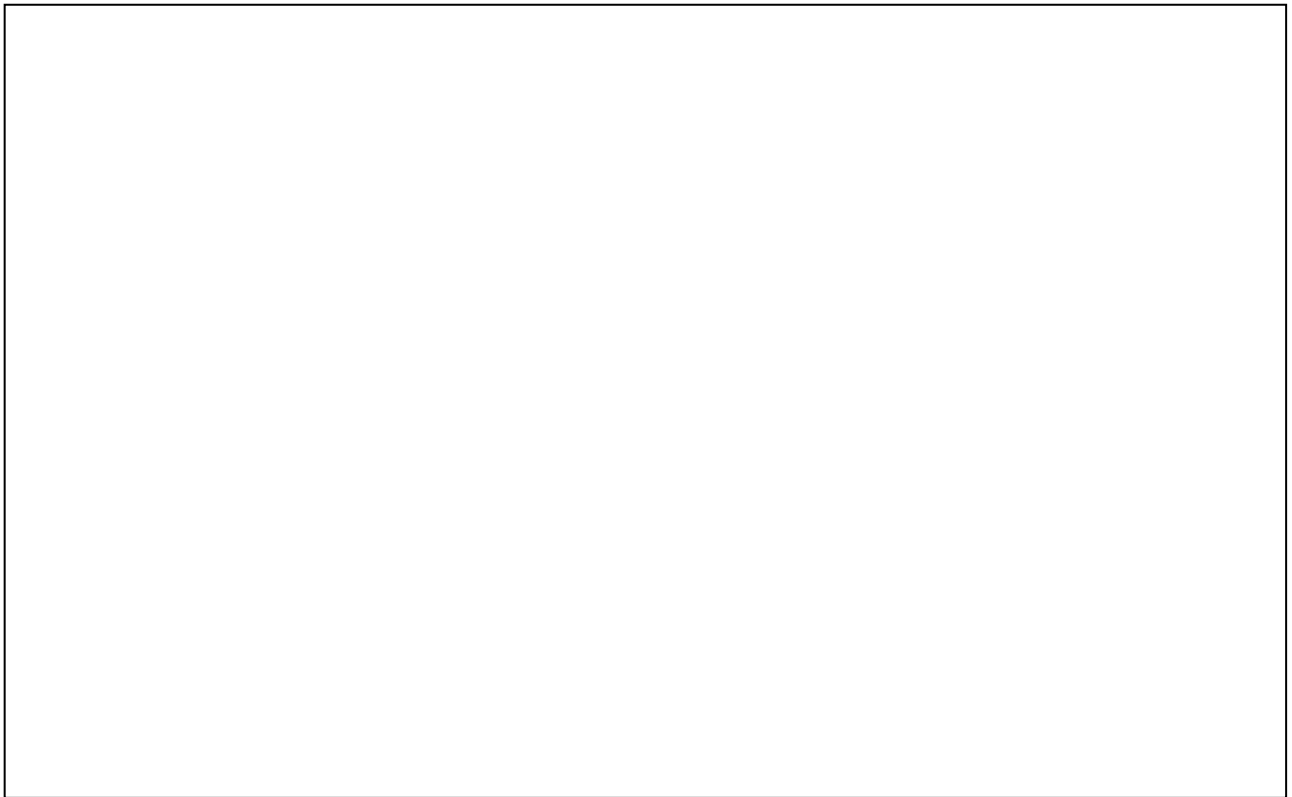
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3. (a) In the space provided below, draw a sketch map of a CARICOM country and put in the location of ONE area where a natural resource, used for commercial purposes, is found.



(5 marks)

- (b) (i) Describe how TWO factors have influenced the location of ONE of the following primary industries in the Caribbean.

- Bauxite
- Oil and natural gas

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(4 marks)

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(ii) Define the term 'secondary economic activity'.

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(2 marks)

(iii) State TWO examples of a secondary economic activity.

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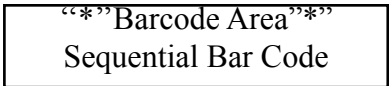
(2 marks)

(c) (i) Explain THREE effects of population growth in a named urban area in the Caribbean.

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4. (a) Figure 3 below shows temperature and rainfall data for Havana, Cuba. Study it and use the information to answer Parts (a) (i)–(iv).

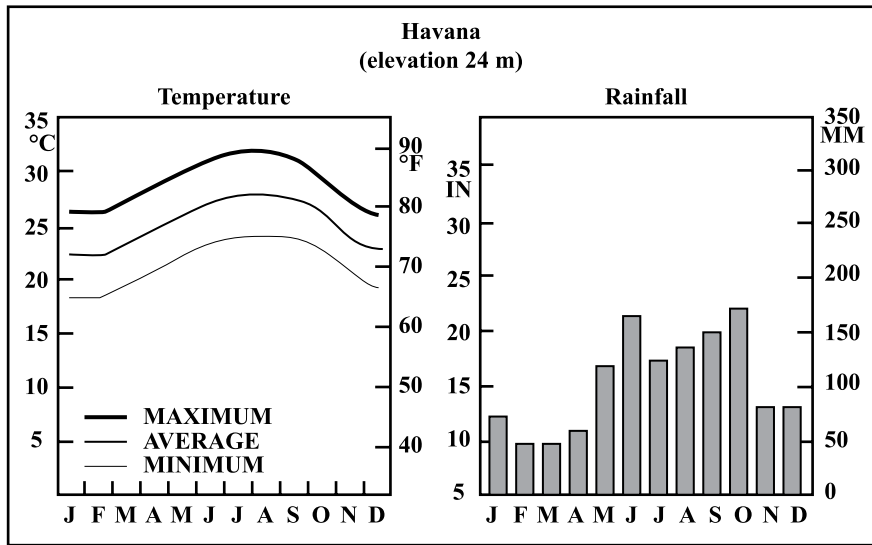


Figure 3. Temperature and rainfall graphs for Havana, Cuba

Source: http://www.cubaweather.org/cuba_climate.php

- (i) What is the LOWEST minimum monthly temperature?

..... (1 mark)

- (ii) What is the difference between the highest average and the lowest average temperature? (Show all working.)

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..... (2 marks)

- (iii) If a dry month (in the Tropics) is one with 100 mm or less rainfall, when is the dry season in Havana?

..... (1 mark)

GO ON TO THE NEXT PAGE

(iv) What is the general relationship between the temperature and rainfall patterns?

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(1 mark)

(b) (i) Describe TWO ways in which some agricultural practices in the Caribbean have resulted in environmental degradation.

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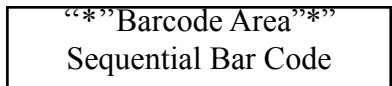
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(4 marks)

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- (c) (i) Explain TWO ways in which the development of agriculture in the Caribbean is influenced by climate.

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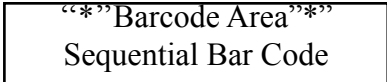
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(6 marks)

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- (ii) Explain TWO ways in which human activities can have a positive impact on tropical forest biomes in the Caribbean.

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(6 marks)

Total 25 marks

END OF TEST

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INSTRUCTIONS TO CANDIDATE:

1. Fill in all the information requested clearly in capital letters.

TEST CODE:

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SUBJECT: GEOGRAPHY – Paper 02

PROFICIENCY: GENERAL

REGISTRATION NUMBER:

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FULL NAME: _____
(BLOCK LETTERS)

Signature: _____

Date: _____

2. Ensure that this slip is detached by the Supervisor or Invigilator and given to you when you hand in this booklet.
3. Keep it in a safe place until you have received your results.

INSTRUCTION TO SUPERVISOR/INVIGILATOR:

Sign the declaration below, detach this slip and hand it to the candidate as his/her receipt for this booklet collected by you.

I hereby acknowledge receipt of the candidate's booklet for the examination stated above.

Signature: _____
Supervisor/Invigilator

Date: _____

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EXAMINATION

GEOGRAPHY

SPECIMEN PAPER

PAPER 02 - GENERAL PROFICIENCY

KEY AND MARK SCHEME

GEOGRAPHY
 SPECIMEN PAPER
 PAPER 02 - GENERAL PROFICIENCY
 KEY AND MARK SCHEME

<u>Question 1.</u>	P1	P2	P3
<p>(a) (i) 375019 (accept 375020)</p> <p>2 marks for correct response 2 marks</p> <p>37_01_ a wrong fraction = correct square or 4 figures 3701 or <i>correct reference but wrong style</i> - 1 mark only</p> <p>(ii) 4 cm represents 1 km</p> <p>1 mark for correct response 1 mark</p> <p>(iii) 600 m</p> <p>2 marks for correct response 2 marks</p> <p>Correct response - No unit - 1 mark</p> <p>(iv) 152° (Accept any bearing 151°- 153°)</p> <p>2 marks for correct response 2 marks</p> <p>150° or 154° - 1 mark only</p> <p>(v) West</p> <p>1 mark for correct response 1 mark</p> <p>(vi) Characteristics of drainage north of Northing 96:</p> <ul style="list-style-type: none"> • Area is semi-circular and water courses radiate from the centre • Small dendritic streams • Streams to the west of the area start at a higher elevation than those in the eastern half - 1500 feet in contrast to 500 feet • The density is greater in the western section • There are many ponds near the mouth of the streams in the west but none in the east. The longer streams follow a winding course in narrow valleys <p>1 mark for EACH of any FOUR identified 4 x 1 mark = 4 marks</p>	<p>2</p> <p>1</p> <p>2</p> <p>2</p> <p>1</p>	<p>4</p>	

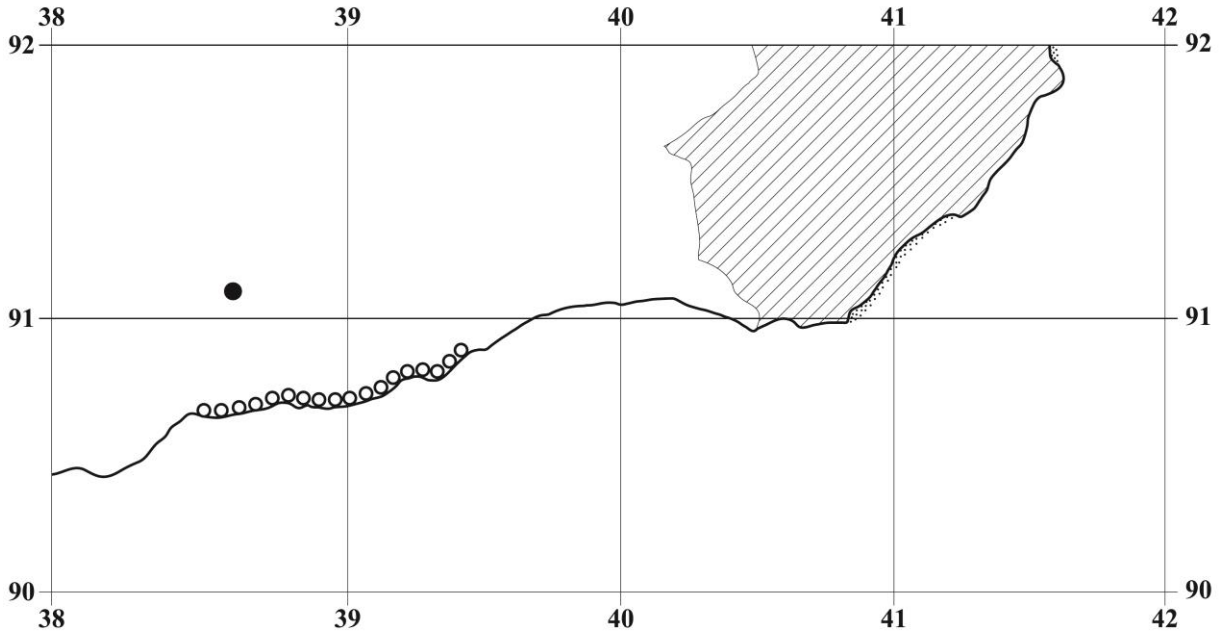
GEOGRAPHY
SPECIMEN PAPER
PAPER 02 - GENERAL PROFICIENCY
KEY AND MARK SCHEME





<u>Question 1. (continued)</u>	P1	P2	P3
<p>(b) Area between Eastings 38 and 42 and Northings 90 and 92 showing coastline. (See diagram on page 4.)</p> <p>With a key or labels:</p> <p>Beach correctly placed 1 mark</p> <p>Coastal cliffs placed 1 mark</p> <p>Peak (only 1) placed 1 mark</p> <p>Cultivated area placed 1 mark</p> <p>(c) Distribution of the areas of cultivation and plantation - reasons and examples:</p> <ul style="list-style-type: none"> • Areas with gentler slopes easier to cultivate • Access to water courses for irrigation • Access to main road to get crops to markets • Steep slopes avoided, difficult to cultivate and higher risk of erosion <p>Any THREE reasons EACH with correct evidence from the map 1 mark + 1 mark = 2 marks 3 x 2 marks = 6 marks</p> <p>(d) Features of relief around Charlestown:</p> <ul style="list-style-type: none"> • Coast • Narrow beach • Small plain • Land rises evenly to the east to nearly 200 feet • Highest point to northeast (183 feet) <p>1 mark EACH for any THREE features 3 x 1 mark = 3 marks</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>3</p>	<p>6</p>
Total 25 marks	12	7	6
Specific Objectives: 1.1(a), 1.1(b), 1.1(d), 1.1(e), 1.1(j), 1.1(k)			

GEOGRAPHY
SPECIMEN PAPER
PAPER 02 - GENERAL PROFICIENCY
KEY AND MARK SCHEME

Question 1. (continued)

Diagram for Question 1 (b)



Key	
	Cultivated area
	Peak
	Beach area
	Cliff

GEOGRAPHY
SPECIMEN PAPER
PAPER 02 - GENERAL PROFICIENCY
KEY AND MARK SCHEME

<u>Question 2.</u>	P1	P2	P3
<p>(a) Features of</p> <ul style="list-style-type: none"> • Trench A — Cayman Trench (accept Bartlett Deep) • Trench B — Puerto Rico Trench • Volcano C — Mt Pelee • Island Chain D - <i>island</i> arc (volcanic arc is used on the continent) • Plate E - North American Plate • Plate F - Caribbean Plate • Deep Water G - Subduction Zone <p>Any FIVE - 1 mark EACH 5 x 1 mark = 5 marks</p> <p><i>Accept first five listed if more than five answers are given</i></p> <p>(b) (i) Ways in which trenches are formed:</p> <ul style="list-style-type: none"> • Oceanic trenches develop where continental and oceanic plates (1) converge. (1) The oceanic plate (1) is subducted (1) and a trench is formed on the ocean floor at the junction. (1) • Trenches can also be formed along a transform boundary (1) where the plates move at different rates (1) or in opposite directions (1) so that a gap develops between the plates (1) within this gap or trench upwelling of magma occurs. (1) <p>Any ONE point - 1 mark EACH 1 x 4 marks = 4 marks</p> <p>(ii) Ways in which volcanoes can be formed:</p> <ul style="list-style-type: none"> • Volcanoes can be produced where plates converge. (1) Oceanic plates laden with water and sediment plunge into the hot mantle, (1) fluids that are driven off the descending plates rise into the upper, overriding plate (1) where they promote the formation of magma (1), which rises to the surface to form a volcano often with a violent eruption. (1) • Volcanoes can be produced where plates diverge. (1) Upwelling currents (1) in the mantle move the plates apart (1) the release of pressure causes part to melt. (1) This magma rises to the surface and creates a volcano which erupts quietly. (1) <p>Any ONE point - 4 marks EACH 1 x 4 marks = 4 marks</p>	5	4	4

GEOGRAPHY
SPECIMEN PAPER
PAPER 02 - GENERAL PROFICIENCY
KEY AND MARK SCHEME

<u>Question 2. (continued)</u>	P1	P2	P3
<p>(c) (i) Formation of delta:</p> <ul style="list-style-type: none">• Where there is active erosion along a river's course (1) a large load comprising mud, silt, and, gravel (1) is produced.• An absence of large lakes, dams along the river's course or of diversion of the river (1) prevents the removal of these sediments (1) most of which are transported to the lowest parts of the river where it meets the sea. (1)• Reduction of the river's velocity and its energy as it enters the sea (1) leads to the deposition of the sediments (1) the absence of strong tides and currents allow for the deposition of most of the sediments at the coast (1) / where there are strong tides deposition may still occur if there is an extremely large load (e.g. Colorado River Delta). (1)• As deposition occurs in the river's mouth (1), the river separates into a number of smaller streams or channels called distributaries. (1) Over time repeated deposition produces a low-lying alluvial plain extending seaward, just above sea level (1), this is called a delta; the shape of the delta depends on which of three factors (the river, the tides and waves) is dominant. (1) <p>Any THREE conditions: 1 for the condition and 1 for any expansion explaining its influence 2 x 3 = 6 marks</p>			6

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<u>Question 2. (continued)</u>	P1	P2	P3
<p>(c) (ii) Conditions for the formation of a headland:</p> <ul style="list-style-type: none">• Headlands are formed along a highland coast (1) where alternating bands (1) of resistant and less resistant rocks at an angle to the coast (1) are eroded by waves (1) leaving the resistant beds jutting out into the sea. (1) This is called a discordant coastline. (1)• Headlands may also be formed where the same type of resistant rock lies along the coast but has weak points. (1) The waves cut through the band of resistant rock (1) at these points and erode the weaker rock behind it (1) leaving sections of the resistant rock as headlands. This is called a concordant coastline (1) and has fewer headlands than discordant coastlines. (1)• Water along the coast must be deep (1) and destructive waves (1) must approach the coast (1) regularly (1) to produce the headlands. <p>Any TWO conditions - 3 marks EACH 3 x 2 = 6 marks</p> <p>Note: Marks may be earned from well-labelled diagrams showing the characteristics of the conditions - 1 mark for EACH of SIX correct features</p>			6
Total 25 marks	5	8	12
Specific Objectives: 2.2, 2.3, 2.22			

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<u>Question 3.</u>	P1	P2	P3
<p>(a) Sketch map of Trinidad, Guyana or Jamaica fairly accurate outline with a title</p> <p>Sketch map - fairly accurate outline - 2 marks Title - 1 mark North arrow - Correct location and name of resource - 1 mark each 5 marks</p> <p>(b) (i) Factors influencing the location of primary industries in the Caribbean:</p> <p>Bauxite:</p> <ul style="list-style-type: none"> • Raw material (1) large commercial supplies (1) of bauxite are available in Guyana (e.g. Linden) (1) and Jamaica (e.g. Mandeville) (1) • Labour (1) — Adequate supply of labour available locally (1) highly trained and skilled labour supply (1) some trained locally by companies to fill skilled positions (1) others were trained at regional and international institutions to fill senior/highly skilled positions. (1) Many were later trained at regional and international institutions. (1) • Capital (1) — Very little capital available locally (1) stable governments and commercial supplies of the raw materials attracted foreign investors. (1) • The role of government (1) initially tax incentives attracted foreign investors (1) mainly from the USA and Canada. (1) The withdrawal of foreign companies from the Caribbean and decline in bauxite prices on world market led to heavy state investment in the industry in Jamaica. (1) In 1971 in Guyana the industry was nationalized (1) and at present much foreign investment in the industry. (1) • Markets (1) — Available external markets for raw bauxite, calcined bauxite, alumina (1) in the USA, Canada. (1) These markets are in relatively close proximity to the Caribbean. (1) Transport (1) — Network of roads, rail, conveyor belts (1) constructed by bauxite companies over short distances (1) to facilitate easy movement of ore from mines to processing plants (1) and ports. (1) In Jamaica ports were developed for export of bauxite. (1) In Guyana easy access to rivers allows for lower transport costs to the coast. (1) <p>1 mark for factor plus 1 mark for description 2 x 2 = 4 marks</p>	5	4	

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<u>Question 3. (continued)</u>	P1	P2	P3
<p>(b) (i) Factors influencing the location of primary industries in the Caribbean:</p> <p>Oil and Natural Gas:</p> <ul style="list-style-type: none"> • Raw material (1) in Trinidad and Tobago, despite difficult geological structure (1) large commercial supplies were available (1) particularly in southern Trinidad (1), land and sea sources. (1) • Labour (1) easy availability of local as well as from elsewhere in the English-speaking Caribbean and internationally. (1) Highly trained and skilled labour supply (1), some trained locally by companies to fill skilled positions. (1) Others were trained at regional and international institutions to fill senior/highly skilled positions. (1) Many were later trained at regional and international institutions. (1) • Capital (1) — Very little capital available locally (1), stable governments and commercial supplies of the raw material attracted foreign investors. (1) • Transport (1) — Network of roads and pipelines (1) constructed by oil companies (1) to facilitate easy movement of the product to the refinery (1) and ports. (1) • Role of government (1) — Stable government (1) and tax incentives attracted foreign investors. (1) • Markets (1) available regionally (1) and internationally (e.g. USA and Europe). (1) <p>1 mark for factor plus 1 mark for description 2 x 2 = 4 marks</p> <p>(ii) Secondary economic activity involves the processing or manufacturing of primary resources (1) into usable goods (1) and the assembly of such products, parts and components into other goods. (1)</p> <p>Definition including any TWO points - 2 marks Partial definition - 1 mark</p>		2	

GEOGRAPHY
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KEY AND MARK SCHEME

<u>Question 3. (continued)</u>	P1	P2	P3
<p>(b) (iii) Examples of secondary economic activity:</p> <ul style="list-style-type: none"> • Garment • Food processing • Construction • Bauxite smelting • Crude oil refining • Processing of natural gas (e.g. liquefaction of natural gas/LNG, menthol and ammonia) <p>1 mark EACH for any TWO</p> <p style="text-align: right;">2 x 1 mark = 2 marks</p>		2	
<p>(c) (i) Effects of population growth on a named urban area in the Caribbean:</p> <ul style="list-style-type: none"> • Overcrowding (1) — The number of persons using a service/an area or facility exceeds its capacity consequently reducing the quality of the service. (1) • Over Population (1) — The number of people living in an urban area exceeds that which the resources can support without having a decline in the standard of living. This can cause social problems such as crime, slums and squatter settlements. (1) • Pollution (1) — As a result of the waste generated by a larger population exceeding the systems to dispose of the waste. (1) • Lack of adequate recreation and entertainment space. (1) The demands for these exceed the capacity or the rate at which the authority can supply them. (1) • Lack of adequate transport facilities. (1) More people are forced to provide their own transportation so there are traffic jams. (1) • Shortage of school spaces as the school age population becomes larger than can be accommodated (1) and the authorities do not have adequate resources to add more spaces. (1) • Loss of residential facility (1) as businesses expand into areas previously zoned for housing. (1) <p>1 mark each for any THREE effects - 3 marks 1 mark for EACH explanation - 3 marks</p> <p style="text-align: right;">3 x 2 marks = 6 marks</p>			6

GEOGRAPHY
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<u>Question 3. (continued)</u>	P1	P2	P3
<p>(c) (ii) Factors affecting the growth of the population in the Caribbean with that of those in India OR China OR Nigeria:</p> <p><u>China and The Caribbean</u></p> <ul style="list-style-type: none"> • Improvements in health care (1) have caused life expectancy to increase in both areas. (1) More people are living to an older age and there is a decrease in the death rate of the older age groups (1) and a decline in the younger age groups. (1) • Infant mortality (1) — In both areas there has been a significant decline in the infant mortality rate (1) as there is improved prenatal and postnatal care. (1) This has contributed to women having fewer pregnancies/children. (1) • State policy (1) — In China the state's imposition of a one child policy for families living on the mainland (1) (excluding minorities) helped to curb the population growth. In the Caribbean no government has introduced such a policy but they have introduced family planning programmes to encourage families to limit the size or have used moral suasion and education to encourage people to have fewer children or to delay having children. (1) • Improved educational levels of women (1) in both countries (1) and as a result many women are now working outside of the home hence family sizes are not as large as before (1) lowering fertility rates. (1) <p>1 mark for EACH of TWO factors 2 marks for the comparison which relates to the influence of the element or factor (there must be a comparison) For EACH of TWO factors - 2 x (1 + 2) = 6 marks</p> <p>India and the Caribbean:</p> <ul style="list-style-type: none"> • Education (1) — Increased educational opportunities for girls in both India and the Caribbean (1) are causing a decline in the total fertility ratios (TFRs) in both countries on a national level. (1) However TFRs are lower in the Caribbean due to more widespread and easier access to education and job opportunities for women. (1) 			6

GEOGRAPHY
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KEY AND MARK SCHEME

<u>Question 3. (continued)</u>	P1	P2	P3
<p>(c) (ii) • Government intervention (1) — In India the government has increased spending on family planning programmes and associated resources (1) especially in urban areas (1) while in the Caribbean there is a much higher prevalence and access to family planning than in India (1) contributing to a faster decline in fertility rates and overall population. (1)</p> <p>• Cultural factors (1) — Due to more deep-rooted cultural factors such as early marriages (1) and religious and societal pressures to bear sons (provide economic support) (1), there are greater disparities in population growth rates between regions in India than in the Caribbean. Much higher rates of population growth in the poorer Indian north than in the more urbanized southern India (1) are leading to increasing population growth. (1) In the Caribbean, on the other hand, cultural traditions are not as deeply rooted and have less impact on population growth. (1) However religious beliefs do encourage higher fertility levels in some areas of the Caribbean. (1)</p> <p>1 mark for EACH of TWO factors 2 marks for the comparison which relates to the influence of the element or factor (there must be a comparison) For EACH of TWO factors - 2 x (1 + 2) = 6 marks</p> <p>Nigeria and the Caribbean:</p> <p>• Education/literacy levels (1) — In Nigeria, the more educated and employed women tend to have fewer children than those who are uneducated/ less empowered (1) particularly in urban areas while in the rural areas of north east Nigeria, for example, the total fertility rate (TFR) is approximately 6.1 as more girls do not have opportunities to attend school causing high rates of population increase (1); while in the Caribbean TFRs average 2 for most countries, also birth rates, death rates and natural increase rates (except for Haiti which has a higher rate) all continue to decline due to greater access to education/greater empowerment of women (1) leading to a slowing of population growth. (1)</p>			
Total 25 marks	5	8	12
Specific Objectives: 3.3, 3.5, 3.8, 3.11, 3.12			

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KEY AND MARK SCHEME

<u>Question 4.</u>	P1	P2	P3
(a) (i) Approximately 18 °C 1 mark	1		
(ii) 28-22 = 6 °C 2 marks Wrong answer but one value correct or correct answer but wrong values or no working shown - 1 mark	2		
(iii) Dry season is from November to April. 1 mark	1		
(iv) The rain falls during the hottest time of the year. 1 mark	1		
(b) (i) Ways in which agriculture results in environmental degradation: <ul style="list-style-type: none"> • Use of pesticides and weedicides (1); rain water washes these into soil and over time damages the soil (1); their use contaminates the ground water (1); these chemicals run off to streams polluting them (1) and on reaching the sea kills coral reefs and other marine life. (1) • Use of chemical fertilizers (1) which run off into rivers and sea causing pollution of the water/eutrophication (1); damages soil structure. (1) • Burning of vegetation for land preparation and harvesting (1) results in large amounts of ash in the atmosphere/air pollution (1); damages soil structure (1) and destroys some of the soil nutrients. (1) • Clearing of land in mountainous areas (1) results in soil erosion (1) to destroy wild life habitat. (1) Monoculture over an extensive period reduces soil fertility (1); damages the soil structure (1) and can cause soil to erode more easily. (1) <p>2 marks EACH for any TWO 1 mark for stating the way 1 mark for description</p> <p style="text-align: right;">2 x 2 = 4 marks</p>		4	

GEOGRAPHY
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<u>Question 4. (continued)</u>	P1	P2	P3
<p>(b) (ii) Benefits of mangrove wetland areas:</p> <ul style="list-style-type: none"> • Breeding grounds and nursery for fish and crustaceans • Tourist attractions — Visits to wetlands as part of eco-tourism attraction • Sanctuary for endangered plants and animal species • Reservoirs to store and release water naturally when streams are in flood • Traps for sediments • Storm buffer <p>Any FOUR benefits - 1 mark EACH 4 x 1 mark = 4 marks</p>		4	
<p>(c) (i) Ways in which the development of agriculture in the Caribbean is influenced by climate:</p> <ul style="list-style-type: none"> • Cultivation of crops on the onset of the wet season (1) and harvesting of crops in the dry season (farmer's year) (1) are influenced by the wet and dry seasons (1); some crops like bananas do not depend on seasonal rhythm (1); in Guyana two crops of rice and sugar cane are cultivated each year due to two wet and two dry seasons per year. (1) • A wide variety of tropical crops (1) is cultivated in the Caribbean because of high uniform temperatures year round (1) and adequate rainfall (1); as well as cooler temperatures at higher elevations, for example, the growing of crops such as coffee in the Blue Mountains of Jamaica. (1) • Unreliable income from agriculture (1), weather systems such as hurricanes (1) contribute to flooding (1) and landslides (1) that cause destruction of crops and death of livestock. (1) Droughts (1) decrease crop yields (1) cause death to livestock (e.g. cattle). (1) <p>Any TWO - 1 mark for the way and 2 marks for development = 3 marks 2 x 3 = 6 marks</p>			6

GEOGRAPHY
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KEY AND MARK SCHEME

<u>Question 4. (continued)</u>	P1	P2	P3
<p>(c) (ii) Ways in which human activities have a positive impact on tropical rainforest biomes in the Caribbean:</p> <ul style="list-style-type: none"> • Ecotourism (1) allows for proper management (1) and sustainable development (1) via local community involvement in the forest. (1) • Creation of forest reserves (1) through legislation and enforcement of laws (1) ensures that the ecosystem (1) and biodiversity (1) are maintained. • Research (1) — Produces an inventory for sustainable management (1) to ensure forest stocks are maintained for lumber (1), wildlife habitats. (1) • Reafforestation (1) enhances the aesthetics (1), controls soil erosion (1); regulates water entry in soil and streams (1), contributes to sanctuary/habitat for wildlife (1); trees useful for lumber. (1) <p>Any TWO - 1 mark for the way and 2 marks for development = 3 marks</p> <p style="text-align: right;">2 x 3 marks = 6 marks</p>			6
Total 25 marks	5	8	12
Specific Objectives: 1.5(c), 3.21, 2.27, 3.16, 2.17			

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SUBJECT GEOGRAPHY – Paper 032

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GEOGRAPHY

Paper 032 – General Proficiency

1 hour 45 minutes

SPECIMEN PAPER

READ THE FOLLOWING INSTRUCTIONS CAREFULLY.

1. This paper consists of SIX questions. Answer ALL questions.
2. Write your answers in the spaces provided in this booklet.
3. Do NOT write in the margins.
4. You may use a silent, non-programmable calculator to answer questions.
5. You may use geometrical instruments.
6. You are advised to take some time to read through the paper and plan your answers.
7. If you need to rewrite any answer and there is not enough space to do so on the original page, you must use the extra lined page(s) provided at the back of this booklet. **Remember to draw a line through your original answer.**
8. **If you use the extra page(s), you MUST write the question number clearly in the box provided at the top of the extra page(s) and, where relevant, include the question part beside the answer.**

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Answer ALL questions.

You are advised to spend no more than 10 minutes on Question 1.

1. A map of Nevis (scale 1:25 000), is provided as an insert for this question.

Imagine you are preparing to study farms at Cades Estate in St Thomas Lowland in the northwest of Nevis. With reference to the map, complete the two sketch maps as indicated below at (a) and (b).

(a) Figure 1 shows an outline of Nevis, the parish boundaries and Charlestown.

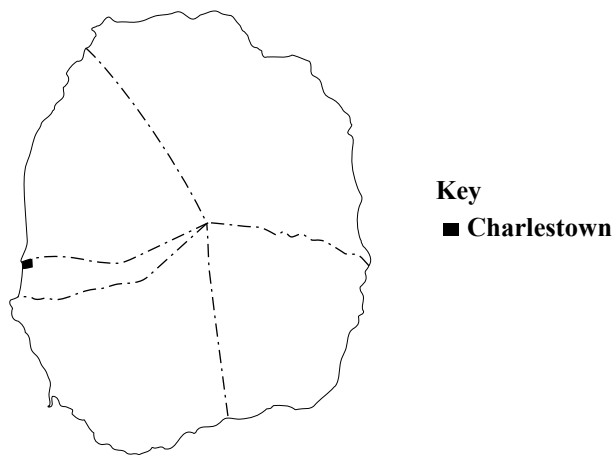
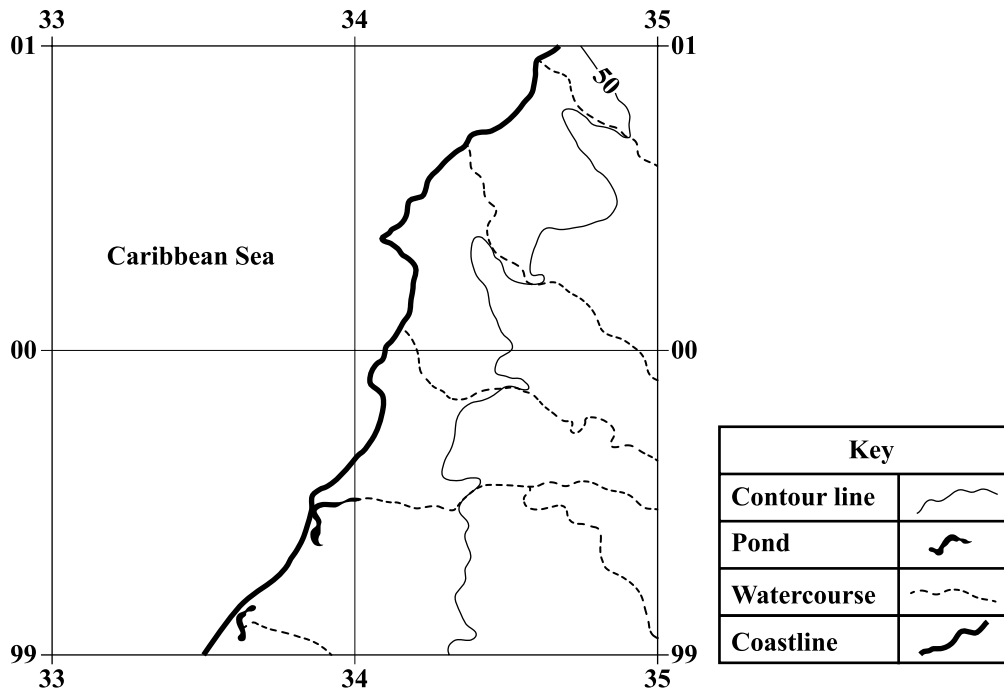


Figure 1. Location of Cades Estate

On this map show the position of Cades Estate.

(1 mark)

- (b) Figure 2 shows part of the map of Nevis between Eastings 33 and 35 and Northings 99 and 01 on the same scale as the map. The 50 ft contour line and the water courses are shown.



**Figure 2. Site map of Cades Estate study area
Scale 1:25 000**

Complete the sketch map in Figure 2 by adding the following:

- (i) The main road **(1 mark)**
- (ii) The secondary road **(1 mark)**
- (iii) The Cades Estate and Lawrence Estate combined area of cultivation (with name labels) **(1 mark)**

GO ON TO THE NEXT PAGE

2. You are to study the extent to which the characteristics of two small, commercial farms in the Cades Estate area in Nevis have been influenced by economic factors.

(a) Formulate a question or state a hypothesis to guide the collection of data in the field. This will be the 'purpose' or 'aim' of your research.

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(2 marks)

(b) Suggest a reason for studying the farms (the reason for your aim). This will form an introduction to your report.

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(2 marks)

3. (a) For the study in Question 2, list SIX items on which you would collect information from the farms.

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(6 marks)

GO ON TO THE NEXT PAGE

- (b) Describe how and when you would conduct the research and record the information in the spaces below.

How:

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(3 marks)

When:

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(2 marks)

- (c) (i) Identify ONE problem (excluding the weather, illness and injury) that you are likely to encounter in conducting the research in (b) above.

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(1 mark)

- (ii) State how you would overcome the problem that you identified in (c) (i) above.

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(2 marks)

GO ON TO THE NEXT PAGE

4. The climate of Nevis influences its agriculture. Table 1 shows the average high and low temperatures in Charlestown.

TABLE 1: AVERAGE HIGH AND LOW TEMPERATURES IN CHARLESTOWN OVER A ONE-YEAR PERIOD

C	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
High	28	27.5	29	29.5	30	30	30	30.5	30.5	30	29	28
Low	23	22	23	24	25.5	25.5	25.5	25.5	25	24.5	23	23

- (a) Using the data in Table 1 and the grid in Figure 3, complete the line graph to show the high temperatures for Charlestown.

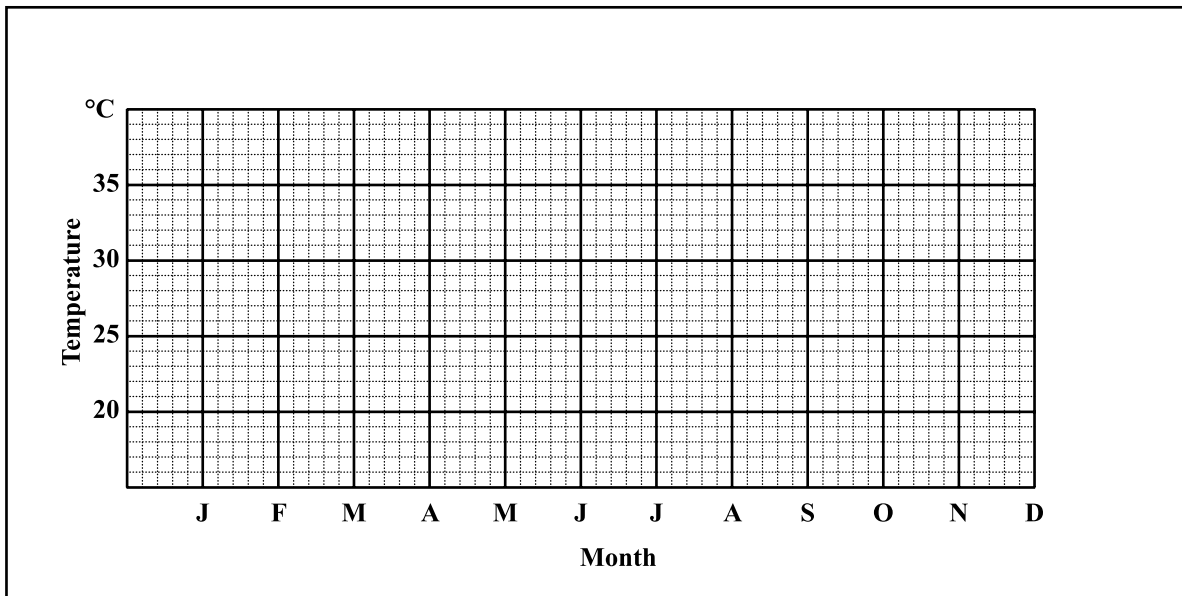


Figure 3. High temperatures in Charlestown

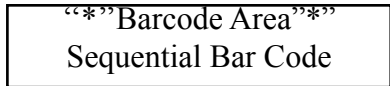
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(b) Using the data in Table 1, describe how TWO characteristics of the temperature could make Charlestown suitable for farming.

(6 marks)

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5. Imagine you are studying the micro-climate on a farm in Nevis and have recorded the rainfall for the month of February. The data is shown in Table 2 below.

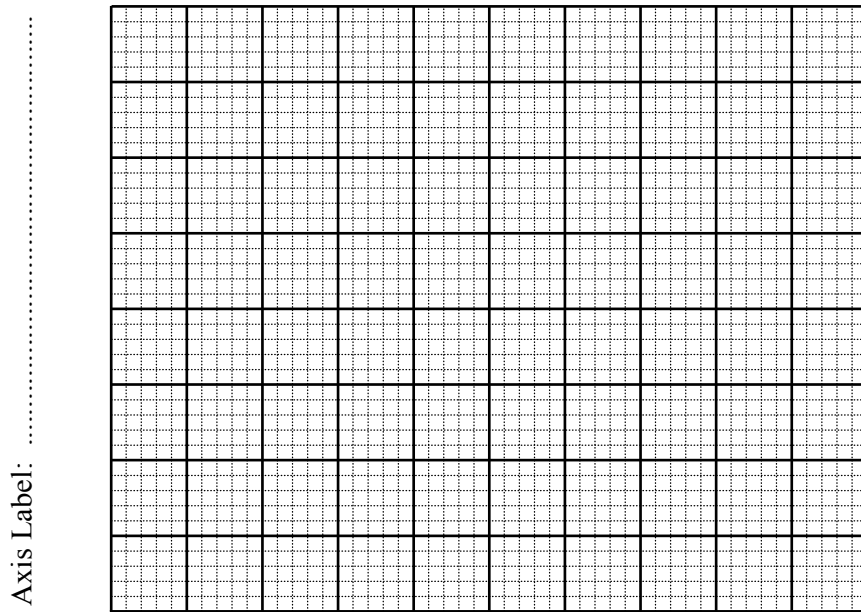
TABLE 2: FEBRUARY RAINFALL (mm) IN STUDY AREA

1	5 mm	8	3 mm	15	2 mm	22	3 mm
2	0	9	0	16	0	23	4
3	5	10	0	17	0	24	0
4	0	11	3	18	0	25	1
5	0	12	0	19	2	26	0
6	4	13	3	20	4	27	0
7	4	14	0	21	4	28	0

- (a) What instrument would help you to collect the rainfall data shown in Table 2?

.....
(1 mark)

- (b) Use the grid below to construct a bar graph to show the data for the last week of February shown in Table 2.



Axis Label:

Figure 4. Rainfall in the last week of February

(3 marks)

- (c) The data in Table 2 is normal for February as it is the same as the average rainfall for Nevis. Explain TWO ways in which farming activities may be influenced by the rainfall.

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(4 marks)

6. After completing the body of your report, you need to present the bibliography which lists the books that you used as references. Four of the five elements of a book required for a bibliography are listed below.

- City of publication
- Name of publisher
- Name of author
- Year of publication

What is the fifth element?

.....

(1 mark)

Total 40 marks

END OF TEST

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GEOGRAPHY

SPECIMEN PAPER

PAPER 032 - GENERAL PROFICIENCY

KEY AND MARK SCHEME

GEOGRAPHY
SPECIMEN PAPER
PAPER 032 - GENERAL PROFICIENCY
KEY AND MARK SCHEME

Question No.		P1	P2	P3
1.	<p>(a) Figure 1</p> <p>Outline map of Nevis with parish boundaries and Charlestown. The location of Cades Estate clearly shown. 1 mark</p> <p>(b) Figure 2</p> <p>Site Map of Cades Estate Study Area with each of the following:</p> <p>(i) Main road (ii) Secondary road (iii) The Cades Estate and Lawrence Estate combined area of cultivation (with name labels)</p> <p>1 mark for EACH correct response 3 marks</p> <p>Specific Objective: 1.4 (b)</p>	1		
2.	<p>(a) Sample answers:</p> <p>How have the characteristics of the two farms been influenced by economic factors?</p> <p>Are economic factors more important than other factors in the two farming systems?</p> <p>The two farms have been greatly influenced by economic factors.</p> <p>Any hypothesis or question that covers the importance of the economic factors on the nature of both farms 2 marks</p> <p>Any which only mentions the factors or the nature of the farms - E.g. Are economic factors important? 1 mark</p> <p>Specific Objective: 1.6.1</p> <p>(b) Any statement which can introduce the report:</p> <p>For example: Some farmers are unable to make a living only from farming. This study is to examine how economic factors influence the farming in Cades Estate. 2 marks</p> <p>Clear overview with justification and topic narrowed to the area of study - 2 marks</p> <p>Introduction not clear or does not provide a focus - 1 mark</p> <p>Specific Objective: 1.6</p>		2	2

GEOGRAPHY
SPECIMEN PAPER
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KEY AND MARK SCHEME

Question No.		P1	P2	P3
3.	(a)		6	
	<p>Any 6 items:</p> <p>Date; Gender of farmer; Age of farmer; Area of farm; Land Use (area cultivated and area in pasture); Ownership - Land tenure; Labour (family or hired); Crops (types, acreage); Livestock (type, numbers); Marketing (direct to consumers or to vendors); Is there any processing of products? Is farming the only occupation? What are the costs of production? Are there subsidies?</p> <p>ANY other item which is relevant to the topic</p> <p>1 mark for EACH RELEVANT item 6 x 1 mark = 6 marks</p> <p>Specific Objective: 1.6</p>			
	(b)			3
	<p>HOW - Prepare a data record sheet/questionnaire (1); Make appointments with the farmers (1). Make a sketch map (1). Take photographs (1).</p> <p>1 mark for EACH relevant technique 3 x 1 mark = 3 marks</p> <p>WHEN - On a week day during the day (1), by appointment (1), avoiding Rainy Season if possible (1) over two days (1).</p> <p>Any TWO points - 1 mark EACH 1 x 2 = 2 marks</p>			
	(c)			1
	<p>(i) EXAMPLE: Unwillingness of farmers to be interviewed.</p> <p>Any appropriate problem 1 mark</p>			
	(ii)			2
	<p>EXAMPLE. Seek the help of the Ministry of Agriculture to be introduced to the farmers.</p> <p>Any appropriate solution for the problem identified 2 marks A weak solution - 1 mark</p> <p>Specific Objective: 1.6</p>			

GEOGRAPHY
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KEY AND MARK SCHEME

Question No.		P1	P2	P3
4.	<p>(a) Line Graph:</p> <p>9+ points correct 3 marks 5-8 points correct 2 marks 3-4 points correct 1 mark Less than 3 correct 0 mark</p> <p>(b) High temperatures suitable for plant growth all year. (1) Highest temperature will not stress plants (1) being 30.5°. (1) Average monthly range is only 6° at its greatest. (1)</p> <p>Low temperatures are all above freezing (1) so no risk of frost damage (1) and are also suitable for plant growth. (1) Lowest average is 22°. (1)</p> <p>2 conditions with any THREE points EACH 2 x 3 = 6 marks</p>	3		6
5.	<p>(a) Instrument is a rain gauge 1 mark</p> <p>(b) Bar graph</p> <p>Both axes labelled 1 mark 3 bars correct 2 marks 1-2 bars correct 1 mark 3 marks</p> <p>(c) TWO ways farming activities may be affected:</p> <ul style="list-style-type: none"> • Low rainfall so crops may need irrigation (1) and farmer will need to save moisture. (1) • Crops may be ready for harvest (1) or plants will be flowering so the farmer will monitor both. (1) • Ploughing (1) to kill weeds and conserve moisture in soil (1) and prepare for planting. (1) • Animals will need shelter (1) and extra feeding (1) as grazing will not be adequate. (1) <p>2 marks EACH for any TWO ways 2 x 2 = 4 marks</p>	3	1	4
6.	<p>The missing element is the title of the book</p> <p style="text-align: right;">- 1 mark</p>		1	
	Total 40 marks	10	10	20

GEOGRAPHY
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KEY AND MARK SCHEME

**DO NOT
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C A R I B B E A N E X A M I N A T I O N S C O U N C I L

**REPORT ON CANDIDATES' WORK IN THE
SECONDARY EDUCATION CERTIFICATE EXAMINATION**

MAY/JUNE 2004

GEOGRAPHY

**SCHOOL REPORT FOR CSEC
GENERAL AND BASIC PROFICIENCIES FOR
JUNE 2004**

General Comments

For the June 2004 CSEC examination, 13 575 and 541 candidates entered for Geography at the General and Basic Proficiency levels respectively. These figures represent a slight decrease of approximately one per cent over the number of candidates who entered for the 2003 examination at the Basic Proficiency level and approximately three per cent at the General Proficiency.

Of the number who wrote the examination at the General Proficiency Level, 58 per cent achieved Grades I – III. This performance showed a decline of three per cent over 2003. With respect to the Basic Proficiency Level, approximately 22 per cent attained Grades I – III, representing a decline of about 15 per cent over 2003.

Specific Comments for General Proficiency

Question 1

This compulsory question tested candidates' ability to transfer information correctly from an Ordnance Survey map onto a grid provided. Other skills tested were measuring distances, finding directions and naming services shown on the map.

Candidates were required to describe the settlement pattern on the map (skills in Profile 2) and to explain relationships between relief and transport routes as well as natural and cultivated vegetation (skills in Profile 3).

There appeared to be an overall improvement in the quality of responses to this question over 2003. Approximately 27 per cent of the candidates scored over 15 of the 28 marks, 29 per cent scored 10 – 14 marks, just over 40 per cent scored under 9 marks. However, a large percentage of candidates earning over 15 marks, scored heavily in Parts (a), (b) and (c) but failed to attain any marks in Parts (d) and (e). This problem seems to suggest an inability to apply the theoretical concepts to the map itself. Over 60 per cent of the responses in Parts (d) and (e) were of a general nature with no reference to, or examples from, the map.

In Part (a), approximately 80 per cent were able to draw in the coastline and road on the grid correctly, although there were some candidates who drew the road without the coastline. The term 'bayhead beach' was confused with 'bay' and over 50 per cent of the candidates were unable to find the correct location. Over 90 per cent of the candidates attempted the grid and this was fairly well done.

In Part (b), over 70 per cent of the candidates were able to measure the distance and give the correct direction.

Section (c) was well done, over 80 per cent of the responses were correct.

Candidates need to know precise definitions of the terms, 'patterns of settlement', 'relief', 'peninsula', 'bayhead beach'. They need to be able to distinguish what is required by the instructions to 'describe' and 'explain'. Nearly half of the responses in Parts (d) and (e) showed confusion between the terms 'high' versus 'steep' and 'low' versus 'flat'; 'high' became synonymous with 'steep' and 'low' with 'flat'.

In order to address the weaknesses demonstrated by candidates answering this question, especially in Sections (d) and (e), more mapwork exercises are needed using Ordnance Survey maps. In addition to regular mapwork sessions, integration of mapwork into the teaching of the various topics is recommended.

Candidates need to recognize that settlement pattern relates to where settlement is found. While mention may include form or type, it is not to be confused with pattern.

The sample below provides an example of a good response to Section (e) (i) where the candidate correctly related roads to relief.

(e) (i) “The relief affects several aspects of the transport routes.

Type – First class roads are built where the land is flat, around 50 feet, as higher lands are difficult and costly to work on. For example, Tucker Valley Road where hills start and land rises to greater heights above 200 ft, third class and second class roads are seen.

Course – Most of the roads are straight as roads are usually spindly on higher lands and most of these roads are on flat land where it is easy to build roads straight.

Density – Due to the dominating hilly areas, the density is not great however where land is flatter, below 100 ft, the density increases.”

Question 2

This question tested Specific Objectives 1.3, 1.18 and 1.21, the candidate’s understanding of plate tectonics, rivers, and flooding respectively.

Forty per cent of the candidates attempted the question with approximately 46 per cent of them attaining no more than 9 of the 24 marks.

Although the vocabulary used in this question seemed appropriate for this proficiency, candidates encountered grave difficulties in providing suitable explanations for the geographical phenomena given. They were also unable to differentiate between ‘describe’ and ‘explain’ in the rubric. For example, when asked to explain a process, many candidates provided descriptions of the geographical features instead.

In Part (a), about 90 per cent of the candidates were able to respond correctly. However, the portion of the diagram that was labelled with the letter ‘C’ seemed difficult to identify since a variety of incorrect answers were given. In some instances, candidates scored no marks since they named the plates instead of stating the type of plate boundary as required.

Part (b) was done fairly well and a significant number of the candidates were able to achieve maximum marks. The main area of weakness exhibited by candidates was in describing the feature instead of explaining its formation. Some degree of confusion seemed to exist since many candidates referred to ‘potholes’ as ‘plunge pools’ and ‘levees’ as ‘raised beds’.

For Part (b) (ii), few candidates were able to achieve maximum marks. In some instances, candidates were able to identify the correct process, ‘lateral erosion’, but failed to provide an adequate description of the process. In other cases, candidates described the various types of river erosion without referring to the widening of the river valley.

The responses to Part (c) were done reasonably well and the majority of candidates achieved maximum marks. However, some candidates in discussing the natural process of deposition in the river channel, stated that “... a river flows quickly in its upper course and slowly in its lower course ...”. This theory was disproved almost forty years ago and candidates should be made aware of this. Some candidates also focused on soil erosion without linking this to river flooding.

In Part (d), candidates were able to identify readily, two measures for averting flooding but a number of them failed to develop their answers fully and so did not achieve maximum marks. In some cases, candidates reverted to the discussion on the causes of river flooding.

It is recommended that teachers provide assistance to students by

- (i) focusing on clear and concise definitions of terms
- (ii) distinguishing between ‘process’ and ‘characteristics’
- (iii) sourcing current and up-to-date information and materials
- (iv) ensuring that candidates receive adequate practice in writing essays that articulate the difference between explaining a phenomenon and describing a geographic feature.

Question 3

This question tested Specific Objectives 1.13, 1.14, 1.15 and 1.20, ‘mass wasting’, the hydrological cycle, springs and drainage patterns respectively.

More than 55 per cent of the candidates attempted this question, and of these, approximately 50 per cent gave satisfactory responses. Only six per cent gained excellent scores (20 – 24) on the question.

In Part (a), based on the diagram, some candidates attempted to ‘explain’ or ‘interpret’ the diagram, rather than identify the features labelled in the diagram. Few candidates gained full marks on this part of the question.

Candidates gave a wide range of responses in attempting to explain the formation of springs. They often ignored the information in Figure 3, and gave general explanations for the formation of springs. Therefore answers included explanations for ‘hot springs’ and even ‘artesian wells’, and ‘dykes’.

Candidates performed well in Part (c) (i). Most of them accurately identified three types of drainage patterns.

Part (c) (ii) posed a challenge to many candidates. The ‘radial’ pattern was best understood; but there was difficulty in describing the dendritic and trellis patterns. Too many candidates used the term ‘distributary’ instead of ‘tributary’ when describing the dendritic pattern. The diagrams also conveyed the concept of a delta.

Some responses focused on the geological structures on which the patterns were found, and gave no description of the pattern.

Part (d) (i) was generally well done, and most candidates showed a good understanding of relationships of the components within the hydrological cycle. The better candidates produced excellent, well-drawn and labelled diagrams to support their answers. On the other hand, many candidates simply gave definitions of each of the components of the cycle.

Terms such as ‘precipitation’, ‘evaporation’, and ‘transpiration’ were often confused.

Candidates gained the lowest scores in (d) (ii). Numerous responses dealt with man’s actions leading to ‘soil erosion’ rather than ‘landslides’ – a form of ‘mass wasting’. As a result many answers were too general and gave no reference to ‘slopes’ or ‘hills’ in the occurrence of landslides. The influence of gravity and lubricating moisture were also ignored.

Recommendations

Teachers should

- ensure that students can distinguish clearly between:
 - soil erosion and mass wasting
 - precipitation and ground water
 - permeable and impermeable

surface water and ground water
precipitation and transpiration

- remind students to pay attention to the diagrams given.

Question 4

Forty-three per cent of the candidates attempted this question which tested the Specific Objectives 2.2, 2.3 and 2.8. The highest percentage of candidates scored between 5 and 9 marks.

In Part (a) most of the candidates were able to interpret the given graph. This part of the question was well done.

In Part (b) candidates experienced difficulty in calculating the annual range of temperature. Some candidates calculated averages instead. Many candidates were not credited for answers which did not specify a unit of measurement, for example, °F / °C.

In Part (c), this question was fairly well done. Again candidates were able to identify periods with the highest / lowest rainfall. Some candidates were able to relate the rainfall pattern to the temperature.

Candidates were able to identify the instruments used to measure the elements given. However, the instrument used to measure wind direction caused them the most difficulty. Some candidates referred to the wind vane as a 'chicken on the roof', 'North fowl' and 'bird on top of the house' which showed a lack of knowledge of the correct term to be used.

In Part (d) (i), many candidates described the appearance of the instrument rather than the positioning of the instrument. Candidates also identified the points regarding the positioning of the instrument but failed to develop the points identified. Some candidates also associated the word 'precautions' with hurricanes and proceeded to give examples of what should be done when a hurricane is approaching.

Part (d) (ii) was poorly done. Many candidates showed some knowledge of the ITCZ but were unable to explain adequately why rainfall is associated with the ITCZ. Candidates also described the angles of convergence rather than explain why the rain occurred.

Part (d) (iii) was fairly well done. Candidates were able to explain the concept of cold and warm air masses meeting and their effect on the elements of the weather, for example, lowering of temperature, change in wind direction, and increase in rainfall. However, many candidates focused on how the cold front impacts on human activities in the Caribbean such as fishing and agriculture.

Question 5

This question tested the candidates' understanding of vegetation types and their adaptation to climatic conditions. It was attempted by 14 per cent of the candidates; approximately 41 per cent gave satisfactory responses.

Some candidates experienced difficulty in drawing and labelling the diagram required in Part (a).

Part (b) (i) was generally well done, with candidates being able to identify the adaptations and link them to drought conditions. There was a tendency just to list adaptations in (b) (ii) with few candidates addressing both temperature and rainfall in their responses.

Candidates were able to identify at least two species in Part (c) (i). However, some regarded 'exotic' species as trees such as 'greenheart' and 'wallaba' from Guyana. The responses to (c) (ii) were too general with the better candidates providing examples for the reasons given.

In Part (d), candidates did not apply knowledge but merely recalled facts, and as such, lost marks by not showing the link to climatic conditions. Some gave in-depth explanations of tropical grasslands.

Special attention should also be paid to natural vegetation as candidates continue to refer to cultivated crops such as wheat as natural vegetation.

Teachers should encourage students to practise drawing and labelling annotated diagrams.

Question 6

This question tested candidates' understanding of various soil types. It was attempted by 20 per cent of the candidates with 42 per cent giving satisfactory responses.

Part (a) was generally well done, with the weaker candidates not referring to rendzina soils.

Parts (b) (i) and (c) were similar questions for two different soil types, and for examining the factors influencing soil formation. Candidates' responses explaining the formation of the soil types were general, without any specific reference to the particular soil type. The better candidates were able to describe its impact on the soil. A good response to (b) (i) was

“The parent material is made up mainly of limestone. When rain falls the limestone dissolves and this accounts for the alkaline nature of the soil. Since limestone is soluble, it is the impurities of the limestone that make up the inorganic part of the soil. Because the parent (rock) is mainly made of limestone, most of it dissolves and so the soil would be very shallow 20 – 50 cm deep. Hence there is no B horizon”.

Part (b) (ii) was generally well done although the weaker candidates misinterpreted the question as soil components or processes operating within the soil.

In Part (b) (iii), candidates described podzols instead of the process involved. The better candidates were able to link the process to the resultant soil.

Part (d) gave the most favourable responses. Many candidates were able to use diagrams to assist in their explanations.

Emphasis should be placed on applying knowledge. Teachers should ensure that students are able to link general information to specifics by teaching the various soil types together with the accompanying vegetation and climate.

Question 7

This question was designed to test candidates' knowledge of the agricultural systems.

About 19 per cent of the candidates' attempted this question and the majority of the responses were poor.

Part (a) of the question tested candidates' ability to identify, by naming and shading the main wheat growing areas in the prairies and to locate a wheat-exporting port and a major town within the area. The majority of the candidates were unable to complete this exercise successfully.

Part (b) (i) was generally well done. However, some candidates gave conditions necessary for growing wheat, for example, temperature, rainfall and soil instead of the characteristics as required, that is, extensive cultivation, monocropping and export orientation.

For Part (b) (ii), many candidates were able to identify two ways in which mechanization has influenced farming on the prairies, but did not gain full marks because they were unable to describe these ways.

Part (c) posed the greatest difficulty for candidates. Many of them described farm size, marketing arrangements and technology rather than identify the changes and show how these affected large scale commercial farming.

A number of candidates compared arable farming on the prairies with that of the Caribbean. Candidates also discussed changes in small scale farming rather than changes in large scale commercial farming. Some candidates wrote of the benefits of farm size, marketing arrangements and technology instead of explaining the changes. Other candidates discussed problems of farm size.

In Part (d), candidates performed creditably. However, some of them confused mixed farming with mixed cropping.

Teachers should remind students that producing good answers in an examination requires more than memorizing the contents and listing facts. Students should be encouraged to spend time practising how to interpret and answer questions clearly, and concisely.

Candidates should be advised that they should spend time reading the questions carefully. Further, they should highlight key words on which the questions are hinged in order to minimise the risk of misreading or misinterpreting the questions.

Knowing and using geographical terms appropriately are essential to the discipline of the subject.

Question 8

The majority of the candidates answered Part (a) of the question very badly. Most of them shaded the Caribbean countries rather than the actual fishing areas in the sea. Areas in the sea were expected to be shaded on the map.

Part (b) was answered relatively well by the majority of the candidates.

In Part (c), candidates continued to list rather than describe. They misinterpreted 'ATTRACTIONS' for 'DESTINATIONS'. In many cases, the answers were not properly developed. Particular attention and emphasis should be placed on the key word and term "DESCRIBE", for example, beaches was mentioned extensively as an attraction, but this was not developed. There was a clear misinterpretation of the idea of what is a tourist attraction.

Many of the candidates rambled. The properly answered responses were cases where the candidates gave specific examples of attractions and activities and described them. Candidates should be encouraged to expand their given responses with the use of specific examples when answering questions.

In Part (d), candidates did not give map evidence in answering this question. Many of them failed to look for map evidence relating to fishing that could be seen on the map. For example, they mentioned issues such as 'shallow water' and 'indented coastline', which could not be clearly seen. Candidates also failed to explain 'why' this area was a good fishing ground. Many confused their knowledge of salmon fishing in British Columbia with the Orinoco River and the fishing grounds in the Trinidadian waters.

In Part (e), many candidates also confused the terms 'CONSERVE' with 'PRESERVE', and the area of British Columbia with the country of Columbia in South America. They were able to describe the method but were unable to explain it and show how this was able to conserve the fishing resources. For example, they tried to use the idea of pollution but failed to link it to fish kills. They also confused the geographical areas by mentioning the existence of coral reefs in Canadian waters and by stating the process of dynamiting as a method used in fishing which is not practised in British Columbia.

Finally, many candidates failed to name a specific country. They did not explain 'how' the measures used conserved the forests, for example, reforestation as a conservation measure was not explained properly. It was described but there was no link between what it is and how it conserves the forest. They confused the term 'afforestation' with 'reforestation' and some had a few ideas of conservation methods and were awarded marks. However they lost marks when they failed to answer the 'how' by explaining how these measures conserve the forests.

Overall, the question was answered fairly well.

Question 9

This question was answered by approximately 25 per cent of the candidates.

Part (a) was fairly well done. However, the weaker candidates were unable to plot the points on the graph accurately.

Part (b) (i) was poorly done. Many of the candidates were unfamiliar with the concept of Central Business District (CBD) and its functions/activities. They listed the activities of a capital city instead of the CBD. Activities for which marks were awarded included commercial, for example, shops, department stores, supermarkets; financial, for example, banks, insurance companies, lawyer offices, government offices or buildings. Some candidates also failed to name the Caribbean capital and hence lost marks.

Part (b) (ii) was well done. Many candidates were familiar with the development of a Caribbean capital on its present site. Good answers recognised the importance of flat land, the sheltered harbour, ports, shelter from North-east trade winds, capital being sited on the leeward side of the islands, the mountains protecting the capital from the North-east trades.

Part (c) (i) was generally poorly done. The drawing of a sketch map to show location of a town is a skill not yet mastered by most candidates. Candidates need to be guided in drawing sketch maps. Some important features to be noted and drawn included coastline, river, some relief features, the actual location of the city, location in relation to other towns or countries. Candidates must practise drawing simple, well-labelled sketch maps.

Part (c) (ii) was well done by the better candidates. A candidate's response which scored full marks included the following:

TWO advantages of location of New York City

- "New York is located in an area with a superb harbour. This harbour is deep and large and can accommodate many vessels/ships at a time. This is advantageous for trade and also this water in the harbour never freezes over so that trade can take place all year round."
- "New York is located in the gap between the Hudson River with its tributary, the Mohawk. This is a huge river which provides a superb communication route to the interior land mass. Trade is therefore very possible with the interior and also communication."

The responses for New York city were much better than the responses for Tokyo. The weaker candidates wrote at length about the advantages or functions of New York city or Tokyo without focusing on the advantages of the location. These weak responses included transport, migration into the cities for jobs, location of industries, and the advantages of flat land.

Candidates also needed to make a distinction between site and location. This was not clear-cut in many responses.

Question 10

This question tested candidates' knowledge and understanding of the dynamics of regional integration and the factors affecting industrial location.

It was attempted by 25 per cent of the candidates. The responses were generally unsatisfactory.

Part (a) of the question was poorly done. Very few candidates could identify the territories on a map of the Eastern Caribbean. Candidates showed a glaring lack of knowledge of the membership of CARICOM and the OECS. Some candidates listed countries such as Australia, China, Argentina and Venezuela as members of the two organizations.

Part (b) generated better responses from the stronger candidates. They were able to explain three distinct advantages of membership of CARICOM. Other candidates wrote generally about free trade without explaining the benefit.

Part (c) was misread by some candidates who interpreted small size of population as small land area or physical size.

Part (d) created a great deal of difficulty for many candidates. The typical answers were a discussion on the four factors of industrial location in a general way and without reference to the named industry. Other responses attempted to describe how the factors of industrial location affected the development of the named country as a whole. Some candidates discussed primary activities like sugar cane cultivation and banana cultivation.

SCHOOL BASED ASSESSMENT

General Comments

The SBAs submitted have improved in terms of the required number of pages and the consistency in the assessment of the marks. There is closer agreement between the marks awarded by the teachers and Moderators.

Nevertheless, there is need for improvement in several areas. These include topic selection, formulation of a measurable aim, mapping skills and the overall presentation of the data. Teachers are advised that they should ensure that the topics selected must be taken from the Geography Syllabus.

Specific Comments on the SBA Field Study

1. Table of Contents

Most candidates gained maximum marks. However, a small number had subheadings like lists of illustrations and introduction. Additionally, some or all the pages were not numbered.

2. Location of Field Study

Most candidates provided two maps. A written description of the study area or its location is **NOT** required. The location of the site studied should be shown clearly on the map of the territory / country, as well as, included in the KEY. The other, a large scale map, should represent the SITE of the area studied with all the appropriate labelling, and essential features, that is, key, compass point, scale, border and title. Both maps must be outlined and labelled in ink using script / block lettering.

3. Aim

Generally the aims were clear and concise. Hence most candidates were able to collect relevant data in the field and consequently presented good studies. Some studies, however, had aims that were either too broad or vague. Such aims generated very little primary data and forced candidates to rely heavily on secondary data. A sample of poor aims submitted were:

- "What are the factors that cause many hurricanes to come close to or directly affect the Caribbean in September?"
- "How is tourism contributing to the economic development of ...?"
- "To investigate the effects of air pollution caused by ... garbage dump."

4. Collection of Data (How, When, Where)

Overall this section was well done. A few candidates appeared to forget to name the specific area(s) where data were collected; and to give precise data including the year.

5. Presentation of Data

The skills/illustrations (Profile 1) aspect of this section, required candidates to provide relevant field sketches, tables, graphs and photographs pertinent to the aim being developed. The illustrations must be well labelled, titled, referenced and referred to in the written account. Candidates should include at least three types of illustrations. Too many candidates relied mainly on computer generated photographs which were not labelled; and inappropriately placed in the written account. It is to be noted that no credit is given for photocopied material, for example, maps, pictures, newspaper clippings.

The written account (Profile 3) required candidates to write a clear and concise account of the field study. Candidates are reminded that it is not enough to insert illustrations with brief descriptions. The primary data must be analysed fully and integrated with the illustrations to form a well-developed, organised and logical presentation.

6. Conclusion

Too many candidates provided data, both quantitative and qualitative, that should be included in the presentation of data section rather than in the conclusion.

The conclusion is a summary of the findings, and should reflect the aim of the study. There should be no new information in this section.

7. Bibliography

Many candidates did not perform well in this area. The names of authors must be organised in alphabetical order. The name of the publisher, place of publication and the year must be included.

Candidates should have a separate section namely,

‘Other Sources’ for the following:

- Web sites
- Newspaper articles
- Atlas
- Topographic maps

Teachers should provide guidance with the correct format.

Recommendations for Teachers

Teachers should remind students that while they are allowed to undertake joint field work they should adhere to the syllabus directive stipulating that each student must submit an independent report. Students should also be made aware that failure to observe this procedure will evoke a penalty.

Paper 03/2

General Comments

There is need for improvement in several areas. These include topic selection, formulation of a measurable question or hypothesis, mapping skills and methods for the collection of data in the field. The topics selected must be guided by the Geography syllabus.

Over seventy per cent of the sketch maps of Tobago were poorly done. The location of the site should be shown clearly in the **map showing the territory countries**. Figure 1 (b) required a large scale map showing relevant features, such as settlements, roads, coast, key, scale and compass points. This was not done satisfactorily. Maps must be outlined and labelled in ink, using script/block lettering.

Candidates demonstrated through their answers that they possessed limited knowledge on research methods and techniques.

The wording of the question/hypothesis was not clear. Question 2 required a simple and concise hypothesis/question for the adequate collection of data. Too many candidates wrote research questions/hypotheses which were broad, resulting in difficulty of designing workable field testing. The following are examples of unacceptable research questions.

- What were the causes and effects of the development of suburbs?
- Can this land be cultivated, can proper agriculture take place and is it in proper living standards for the families?
- How many houses will be built in the new housing area for the next five to ten years?

Generally the responses to Question 3 (a) and (b) were not satisfactory. Candidates failed to indicate the type of data or information that they would collect from the instrument(s) identified.

Candidates are reminded that the topics chosen for Paper 03/2 must be based on the syllabus contents.

Candidates showed a lack of knowledge on how to construct a bibliography for newspapers articles.

Specific Comments for Basic Proficiency

Question 1

The overall performance of the candidates on this question was poor, especially in Parts (b) and (c). In Part (a) (i), many candidates were able to state the direction correctly; a few gave the bearing instead. Candidates, in (a) (ii) understood the concept of six-figure grid references but were unable to get the correct answer.

In Parts (a) (iii) and (iv), many candidates were unable to read the contours correctly. A few gave the incorrect units for the heights. In Part (a) (v), candidates were able to describe the types of settlement patterns but were unable to identify the specific types. Some confused settlement and drainage patterns. Others named buildings, for example, church. In (a) (vi), few candidates were able to identify the four types of land use. However, most could identify two.

Many candidates did not attempt Part (b). Those who did had no idea what was required of them. They wrote about population distribution.

In Part (c), some candidates did not attempt to answer this question. Many who did used the terms height and steep interchangeably.

Question 2

Less than half of the candidates attempted this question. The overall performance was poor. An extremely small number scored 9 or more marks.

In Part (a), only a few candidates were able to identify all the features of intrusive and extrusive volcanicity. Most could identify at least two features. Candidates were unable to distinguish between sill and dyke. A common response for 'E' was magma chamber.

In Part (b), the candidates' descriptions of the volcanic features were vague or inaccurate. In many cases the features identified in (a) were incorrect and hence this affected their responses in (b).

In (b) (ii), the majority of the candidates were able to name the two types of materials produced by volcanic eruptions.

In Part (c), many of the candidates who attempted this question performed satisfactorily.

Question 3

This question was attempted by more than 90 per cent of the candidates. The overall performance was fairly good as the majority scored more than 50 per cent of the marks. The candidates performed best in Parts (a) and (d). However, Parts (b) and (c) presented difficulties to many candidates who lacked knowledge of climatic types. They were unable to identify specific areas where the type of climate named was found. Consequently, they could not describe the characteristics properly. The descriptions were very general.

In Part (a), a few candidates were unable to read and interpret the climatic graph. They presented numbers instead of months for the answers.

In Part (c), some candidates described the characteristics of vegetation instead of climate.

In Part (d), the majority of candidates performed satisfactorily.

Question 4

This question was not very popular. Less than thirty per cent of the candidates attempted the question. Generally, the overall performance of the candidates on this question was poor. Several of them scored zero.

Part (a) was done poorly.

In (a) (i), a large number of candidates were unable to name the processes correctly and there were others who were not able to name them in their correct order. In (a) (ii), most of the candidates were unable to identify the process that created the labelled layer. Only a few candidates were able to label Horizons 3 and 4 correctly.

In (b) (i), candidates gave a limited definition of a soil horizon. Most of them only mentioned the layers. Many candidates were able to answer Part (b) (ii) correctly although there were some candidates who named types of soil instead of components of soil.

Part (c) was done satisfactorily. Some candidates explained the methods used in soil conservation instead of giving reasons for encouraging soil conservation.

Question 5

Less than thirty per cent of the candidates answered this question. The general performance was poor with the majority scoring less than 50 per cent.

Some candidates had difficulty in interpreting Part (a) (ii) where they identified vegetation types as grasslands and forests as opposed to grass and trees.

In (b) (i), several unfamiliar species of trees were given, for example, 'plywood tree' and 'water log tree'. Several endemic tree species were also given. In (b) (ii), candidates had little knowledge about the benefits of individual species introduced to the Caribbean. Oxygen was frequently given as a benefit.

In (c), some candidates had a fair grasp of the effects of large scale removal of natural vegetation in the Caribbean but could not fully develop their answers or name specific Caribbean territories.

Question 6

This was a popular question. However, most candidates scored less than fifty per cent of the marks for this question.

In (a), the graph was generally well done although only few candidates gave it a title.

In (b), many candidates were unfamiliar with the meaning of the phrase 'extensive farming' and the term 'commodities'.

In (c), most candidates were unable to explain the farming practices associated with the small size of peasant farms and therefore scored poorly. Most responses referred to general characteristics of peasant farms.

Question 7

Many candidates attempted this question and the majority of them scored less than 9 marks.

In (a) (i), most candidates had only a vague knowledge of the Caribbean and as a result only a few were able to score full marks. Some candidates shaded the entire island of Hispaniola for Haiti. Many students shaded large areas for Guyana and Belize.

In (b), most candidates were able to name the fishing methods used in a named Caribbean territory but some of the methods chosen were not applicable to the region. Some candidates identified fishing methods but were unable to describe them.

In (c), some candidates were able to name conservation measures used but some were not applicable to the Caribbean. Some of the candidates were unable to explain adequately the measures used to conserve the forest. A few candidates described soil conservation methods or focused on the habitats of wild life.

Question 8

Part (a) of this question sought to test candidate's ability to read a diagram showing fractional distillation of crude oil and extract information pertaining to the products of the process. Most candidates scored very well on the first section.

In Part (b), candidates were required to describe how bauxite or oil is mined in a named Caribbean country and describe the location of oil or bauxite in that country. Most candidates could link the industry correctly with the geographical area or country but a few mistook bauxite countries for oil countries and vice versa. Candidates were unclear about the specific location of the resource chosen.

In Part (c), candidates were required to give three reasons why the garment industry is so widespread in the Caribbean. Candidates seemed unsure as to what the question required of them. Their responses were superficial and encroaching on subject areas other than geography.

Question 9

Less than 30 per cent of the candidates attempted this question. The performances were exceptionally poor. They seemed to have very little knowledge of the concepts that were being tested including the map skills.

In Parts (a) (i) and (a) (ii), very few candidates knew the member countries of both CARICOM and OECS and were able to identify the countries which were numbered on the map. In (a) (iii), several candidates were able to identify a major producer of oil in CARICOM.

In Part (b) (i), the majority of candidates had a fairly good grasp of commodities traded in CARICOM. The meaning of the word commodities was not clear to some. In (b) (ii), many candidates were not sure about the advantages for trade among CARICOM members and made general statements, for example, "trade helps countries in CARICOM".

In (c), some candidates did not have a clear understanding of the concept of urbanisation but dealt with the effects of rural to urban migration only.

C A R I B B E A N E X A M I N A T I O N S C O U N C I L

**REPORT ON CANDIDATES' WORK IN THE
SECONDARY EDUCATION CERTIFICATE EXAMINATION
MAY/JUNE 2005**

GEOGRAPHY

**CSEC GEOGRAPHY
GENERAL AND BASIC PROFICIENCY EXAMINATIONS
MAY/JUNE 2005**

GENERAL COMMENTS

For the 2005 CSEC Geography Examinations, a total of 14 085 candidates registered for the General Proficiency Level and 622 for the Basic Proficiency Level. This represents an increase of five per cent and eighteen per cent respectively over 2004. The percentage of candidates earning Grades I to III at the General Proficiency was slightly below (by four per cent) that of 2004; but at the Basic Proficiency, it was significantly lower (by eight per cent) than 2004.

DETAILED COMMENTS

General Proficiency

Paper 02

Question 1

This was the compulsory question which tested candidates' map-reading skills.

In Part (a), just over half of the candidates were able to identify the correct square for the grid reference but many of them could not give the accurate six-figure reference. A few of the candidates wrote the grid reference using commas or decimal points and were not credited while others wrote it in the wrong order.

For Part (b), approximately 50 per cent of the candidates were unable to measure the distance accurately. The common errors were mixing imperial and metric units and omitting the unit.

In Part (c), the majority of the candidates confused grid bearing with grid reference as well as cardinal points. Candidates who took the bearing from either end of the airstrip were credited.

For Part (d), several candidates gave north-west or north-north east instead of north-north west that was the required answer. A few of the candidates gave incorrect responses such as west north-west, north-west north, south-west north and magnetic north.

In Part (e), few candidates were able to identify correctly two crops. Too many candidates gave mixed cultivation as a crop, or listed crops from the key such as bananas and tobacco which were not on the map extract.

For Part (f), the cross section was done badly by the majority of the candidates. They were unable to identify specific points and instead they named landforms such as plateau and rift valley. Several candidates had the coastline and the beach on the section. Approximately 50 per cent of the candidates did not attempt this part.

In Part (g), the types of settlement were fairly well known but the majority of the candidates were unable to correctly locate them, and about 20 per cent located examples outside of the designated area. The distribution of the settlement types was ignored by the majority of the candidates. Incorrectly written grid references were a common feature in several of the responses. Too many candidates used the terms "urban" and "rural" settlements as types of settlements instead of 'linear', 'scattered' and 'dispersed' settlements.

Part (h) was fairly well done by approximately 40 per cent of the candidates. Several of them were able to list the vegetation types.

In Part (i), the majority of the candidates could not distinguish between ‘natural vegetation’ and ‘cultivated vegetation’, giving very general statements such as “the scenery takes up space and leaves the land looking forest rated” and “natural vegetation is vegetation that grows naturally without man’s interference and is much better than artificial vegetation”.

The general impression was that the candidates appeared to need more practice in map work. Teachers are urged to ensure that sufficient time is allocated for practical work so that skills for map work can be developed, especially since it is an integral part of the discipline.

Question 2

This question focused on aspects of the geomorphic system. Specific Objectives 1:1, 1:2, 1:3, 1:5, 1:7 and 1:9 were tested. The candidates’ overall performance in this question was poor. Approximately one-third of all the candidates who attempted this question scored between 5 and 9 of the available 24 marks. Responses demonstrated a lack of knowledge of aspects of the syllabus and of the ability to relate the knowledge acquired to the question.

In Part (a), many candidates were unable to name the Cocos or Caribbean plates. Instead, candidates provided answers such as “Caribbean Basin” and “Cozo Plate”. Another common mistake in this question was not providing the name of the plate but the name of a type of plate margin such as convergent, divergent or transform margin.

Many candidates were unable to indicate that a divergent or constructive plate margin exists, though arrows in the map clearly gave this idea.

In Part (b), candidates were asked to define the term ‘crustal plate’. The majority of the candidates were unable to give a proper definition. Some responses included phrases such as “the movement of plates” which the question did not require. Also, some candidates repeated words in the term for example “a crustal plate is a plate which has been evaded off the earth’s lithosphere”. Some responses also indicated that plates were composed of rigid rocks.

In Part (c), candidates were expected to draw a simple diagram of a normal fault, label the fault plane and then state how this type of fault is formed. Most candidates were unable to produce a correct diagram but instead sketched a rift valley, a transform fault and folds. The concept of faulting was confused with folding. There also seemed to be confusion among candidates about the portion of the fault plane. Candidates did not state satisfactorily how normal faults are formed but instead indicated that these resulted from compressed forces and the plate movements. Instead of stating that faulting involves the movement of blocks of rocks, many opted to describe that this phenomenon involved the movement of plates. Diagrams should have included stratification so that movement of block could have been illustrated. The majority of candidates adequately described the benefits of volcanic activity to man. However, a few did misinterpret this part and looked at negative effects such as “the destruction of crops and vegetations”.

Generally, candidates were unable to cite local examples of active volcanoes.

In Part 2 (c) (i), candidates were expected to explain how new crusts are formed at constructive plate margins. Many attempted to describe what happens at convergent plate margins where magma escapes to form volcanic landforms. This answer required three main points: (a) plates move apart or diverge (b) magma rises to fill the space (c) magma cools to form new crust or rock at the edge of plates. There seemed to be some confusion among candidates regarding the use of the terms ‘lava’ and ‘magma’.

In Part 2 (c) (ii), candidates were asked to show the relationship between lava characteristics and the shape of resulting volcanic cones. Several candidates were unable to identify the two lava types, basic or basaltic lava

and acidic or viscous lava. The characteristics of these two lava types were often confused and several terms were used to describe the shapes of the resulting cones such as broad shaped, broad bases for basic ones and narrow sided for acidic ones.

Candidates were expected to indicate that tensional forces cause blocks to sink between two faults and that compressional forces cause blocks to rise upwards over a central block for Part (iii) of this question. Many candidates attempted to draw diagrams to illustrate answers but these were poorly labelled. In describing how compressional forces cause rift valleys, many failed to clearly state that blocks rise over central blocks and instead gave the idea that these blocks also subsided. Many responses also indicated that rift valleys were formed by the movement of plates, erosion of soil, river erosion, flooding and earthquakes.

In Part (iv) many candidates gave vague responses for the importance of studying plate tectonics. One particular response was “plate tectonics is important because through this study we can understand how things are formed and happen and in some cases foretell when something will happen”. The response should have indicated that plate tectonics help us to understand the distribution and the nature of earthquakes and volcanic eruptions and to predict earthquakes and volcanic activity; thus, saving lives and property

Candidates need to become more familiar with examples of relief features in the Caribbean; to use geographical jargons in preparing class assignments; and to number questions correctly and understand and follow command words in a question.

Question 3

The question was designed to test candidates’ knowledge on the profile and feature of a river; drainage systems associated with rivers; the impact of man’s action on the drainage systems; and the coral reef.

The question was attempted by about 64 per cent of the candidates. In general, the question was clearly understood by most of the candidates. The most challenging part was (c) (ii), where candidates were asked to “explain how farming practices” can lead to the destruction of coral reefs.

Overall, Part (a) of the question was well done.

In Part b (i), radial drainage and trellis drainage were done very well; dendritic drainage was poorly drawn and it was often confused with a river branching off at its mouth (water flowing in all directions) as opposed to the branches flowing into the main river. Candidates needed to insert an arrow showing direction of flow. In many cases this was overlooked, especially on dendritic drainage.

Some responses were very vague, as in Part (b) (ii). Candidates showed a lack of knowledge or misinterpreted what was required. For example, they wrote “deposition should take place” rather than “the rate of deposition should be faster than the rate of erosion”. Also, candidates tried to identify the characteristic appearances (“tree /leaf like”; “meeting at right angles”) rather than the geological structure (for example, rocks of uniform hardness/resistance; or alternating bands of hard and soft rocks).

Many candidates found it challenging to differentiate between ‘dendritic’ and ‘trellis’.

In Part (c) (i), although the question was clearly understood, candidates often stopped short of making the connection between the “action” (for example, excess turn off; greater deposits of silt; block drainage) and the “effects” (flooding).

For Part (c) (ii), the candidates focused more on irresponsible actions by farmer, for example, washing out tools and containers rather than some of the more widely accepted actions.

Question 4

This question tested candidates' understanding of the measurement and recording of the elements of the weather and the factors influencing some aspects of the weather and climate of the Caribbean territories.

It was a popular question and was attempted by about 60 per cent of the candidates and 25 per cent of them gave satisfactory answers.

Part (a) of the question was poorly done. Many candidates could not interpret the conventional symbols used on weather maps.

Part (b) was generally well done, although a significant number of candidates could not spell 'anemometer' and 'hygrometer'. There was also a lack of understanding of the concept of 'relative humidity' by too many candidates.

Part (c) (i) was poorly done. Few candidates understood what was meant by an 'annotated diagram' and several candidates associated sea breezes with the formation of waves.

The quality of the answers to Parts (c) (ii) and (d) varied greatly. Candidates recognized the link between relief and differences in the distribution of rainfall across the Caribbean; but few candidates were able to give a detailed explanation which included neat diagrams.

The majority of candidates were challenged to explain the reasons or factors influencing temperature in the Caribbean and the Prairies of Canada. Many were satisfied to state "the Caribbean is close to the Equator and the Prairies are close to the Poles." Some of the more able candidates were able to explain the influence of latitude on the amount of insolation received at the earth's surface; the influence of the earth's rotation and the shape of the earth on the receipt of insolation; and the influence of distance from the sea. A few candidates included diagrams to help to illustrate their answers.

Question 5

This question tested candidates' understanding of the relationship among vegetation, climate and soils.

It was attempted by a large proportion of the candidates and a significant percentage of them gave satisfactory responses.

In Part (a) of the question, candidates exhibited poor map skills. Although able to locate the general area of the vegetation type, few could name the area. Furthermore, few outlined the area or used a key.

In Part (b), many candidates could not name the soil types, although they identified the characteristics. Candidates however performed well in Part (b) (ii).

Candidates noted the presence of the canopy in filtering off sunlight in Part (c) (i), but failed to make the link to photosynthesis or to shade tolerant trees surviving on the forest floor.

Candidates gained most of their marks from Part (c) (ii). The less able candidates confused the coniferous forests with equatorial forests. They also used "trunk" and "bark" and "leaves" and "branches" interchangeably. Many lost marks by not explaining how trees adapted.

Candidates misinterpreted the question in Part (c) (iii) and showed no link to water availability. Many just listed the characteristics of the vegetation. Some candidates focused on the dispersal of seeds resulting in trees in the grassland.

A favourable answer given for Part (c) (iv) is cited below.

“If the trees are removed, the cycle would be broken and nutrients would not be returned to the soil and therefore the soil fertility is lost rapidly because of leaching.”

Many candidates linked soil fertility to soil erosion, and did not emphasize the contribution of vegetation to fertility in the soil nor the process of leaching in removing nutrients.

Question 6

This question was designed to test Specific Objectives: 2, 10, 3.2, 3.4, 3.7, 3.12 and 3.14, and focused on Soils.

Very few candidates attempted it. The general performance was below average, since the majority of the candidates scored less than 42 per cent of the marks available for the question.

Part (a), the drawing and labelling of the rendzina soil profile, was fairly well done. Some candidates identified more than two horizons, ‘A’ and ‘C’, and often inserted a ‘B’ horizon, which they proceeded to label as “almost absent”.

The characteristics of the rainfall of Tropical Marine Climates in (b) (i) were well known. However, too many candidates used relative terms such as “heavy”, “high”, “a lot of” and “abundant”, instead of using absolute or specific figures to represent the amount of rainfall. Some candidates included irrelevant details of temperature, vegetation and soil characteristics in this part of the question.

Part (b) (ii) was well answered by most candidates. However, they were not knowledgeable about the Cool Temperate Interior Climates. One area of weakness observed here was the tendency to ‘list’ rather than ‘describe’ the characteristics of the precipitation.

Most candidates gained partial credit for Part (c) (i). Yet too many candidates identified ‘buttress roots’ and ‘large leaves’, as adaptations for the survival of mangrove trees in their environment. The reasons for conserving mangrove vegetation in Part (c) (iii) were very well known and explained by most candidates.

Part (c) (ii) was poorly done. In too many instances, soil conservation practices such as ‘contour ploughing’ and ‘crop rotation’ were identified and described as ‘bad practices’, which led to soil erosion. In addition, non-farming activities such as ‘mining’, ‘engineering works’ and ‘housing development’ were suggested as farming practices.

The majority of candidates answered Part (c) (iv) very well. Good detailed explanations of the role of precipitation in soil development were often given to obtain maximum marks.

Teachers should encourage more practice in the drawing and labelling of soil profiles. Candidates need to distinguish between key terms such as ‘state’, ‘describe’, and ‘explain’.

Question 7

This question tested candidates’ understanding of problems affecting beef or dairy farming in the Caribbean as well as the reasons for forest protection and fishing in the Caribbean and British Colombia, Canada.

It was attempted by almost 60 per cent of candidates but very few of them gave satisfactory responses.

Part (a) (ii) was not well done. Many candidates were unable to estimate the maximum expenditure; US\$248 million was a popular answer but the correct answer was US\$240 million.

Part (a) (iii) was also not well done. Several candidates were unable to identify the year in which the difference in expenditure for food imports and exports was the lowest. The correct response was 1997.

Part (b) was satisfactorily done by the candidates but many failed to indicate whether they were describing problems of beef cattle rearing or dairy farming.

Part (c) (i) was poorly answered. This topic was not well known. It was obvious that many candidates could not distinguish between the terms 'primary industry' and 'secondary industry'. Candidates' responses indicated that there was much confusion with these terms.

Part (c) (ii) was well done by most candidates; but Part (c) (iii) was challenging. Conservation methods in the fishing industry were confused with preservation methods. What was required from the candidates was: in both areas there is an open and closed season; restriction on the type of equipment used; a system of licensing; use of turtle excluder device (TED); while in British Columbia, the government buys and scraps some of the fishing vessels.

There was a concern as well that too many candidates were unable to write clearly and give an accurate, concise comparison of fishing methods and marketing in the Caribbean and British Columbia. For marketing, for example, what was required was that in the Caribbean, marketing is not well developed. Processing of fish for export and local consumption is usually in the form of fresh or frozen fish, salted fish, whole or fillets. On the other hand, in British Columbia marketing is very well developed. Processing of fish for exports and local consumption includes chilled, frozen, salted, cured, smoked and canned fish.

Question 8

This question tested candidates' understanding of industrial location factors, with specific reference to enclave and import-substitution industries; and north-eastern U.S.A. or the Lower Ganges Valley.

In Part (a), the candidates performed well, with many of them gaining maximum marks. In some cases, this was the only part of the entire question that was done by many candidates.

In Part (b) (i), the candidates were unable to name the industrial centres shown on the sketch map of North-eastern U.S.A. The majority of candidates identified products or industries and not cities on the map.

For Part (b) (ii), the candidates displayed a better knowledge in the drawing of a sketch map of a named Caribbean Territory, showing an industrial area. However, outlines of Jamaica, in particular, were poorly done.

Part (c) (i) was poorly done. The majority of candidates showed no knowledge of enclave and import-substitution industries. Far too many provided no response to the question.

Part (c) (ii) was also poorly done. Responses related to general factors which influence industrial location were given rather than specific reasons for the location and development of enclave and import-substitution industries.

Poor responses continued in Part (c) (iii) of the question. Reasons were identified but no explanation or expansion was given for the growth of these regions into important industrial areas. There was little or no knowledge of the Lower Ganges Valley. Once again, there was no response by many candidates to this part of Question 8.

Question 9

This question was designed to test the candidates' knowledge and understanding of tourism. It was attempted by about 55 per cent of the candidates. The responses were generally satisfactory.

Part (a) was well done, except that some candidates had difficulty with the interpretation of the terms 'destination' and 'source'.

In Part (b) (i), candidates were asked to list three ways in which seasonality affects tourism in the Caribbean. Knowledge of seasonality was fair, but some candidates used terms that were not qualified for example, 'foreign exchange' rather than 'decrease in foreign exchange' or 'foreign exchange varied'.

Part (b) (ii) was fairly done. However, a number of candidates continued to list rather than describe. The better candidates gave physical, social, and economic impacts of tourism on the environment in their answers.

Part (c) (i) was poorly done. A large number of candidates could not define secondary or tertiary industry, and even those who could failed to use the terminology to show a contrast.

Part (c) (ii) (a): The term accessibility was not clearly understood and candidates failed to show how it affects the growth of tourism in the Caribbean. The more able candidates mentioned closeness to markets and the use of airports, cruise ships and internet to get to the destinations.

For Part (c) (ii), many candidates seemed confused with the term 'government policy' and its influence on tourism. The more able candidates mentioned that the government can do promotion, set up a Ministry of Tourism and Tourist Boards, give concessions to investors, build infrastructure and pass laws to enhance safety for tourists.

Part (c) (iii) was a recall question that was poorly answered. Many candidates failed to mention that ecotourism is about the preservation or conservation of the environment being used to encourage tourism.

Question 10

The question tested candidates on the interpretation of choropleth map, proportional circles, settlement and regional co-operation.

Part (a) was not well done as candidates were incapable of interpreting the proportional circles and choropleth map. Several candidates were unable to differentiate between 'population' and 'population density'.

In Part (b) (i), many candidates were able to score maximum marks. However, some candidates were unable to identify traditional exports. Examples of incorrect responses are "natural gas", "ackee" and "cement". Many candidates also gave sugar cane and not 'sugar' as a traditional export.

Part (b) (ii) was poorly done. However, there were some candidates who were aware of how CARICOM attempts to promote regional trade but were unable to clearly express this.

Most candidates attempted Part (c) (i). However, they confused 'urbanization' with 'rural-urban migration' and were unable to get maximum credit for their responses.

In Part (c) (ii), most candidates failed to focus on the factors that determined 'the selection of a site' such as sheltered harbour, and flat land. Instead, the focus was on the services and infrastructure of the city which came after the site selection and development of the city. Candidates used the terms "port", "bay" and "harbour" interchangeably.

Most candidates who attempted Part (d) wrote about location and function but failed to show the relationship between location and function, and growth and development. Many of the responses were general, failing to give specific information about the cities identified. In addition, they compared administrative functions in Kingston with commercial functions in Tokyo.

School Based Assessment

General Comments

Many good studies were submitted indicating that the guidelines were being followed closely. However, there were a few studies that significantly exceeded the 1500 word limit. Additionally, some studies were padded with pages of irrelevant photographs and scanned pictures from magazines.

Though the use of the computer is accepted, candidates are required to demonstrate mapping skills, and to draw a map of the territory and a sketch map of the site studied.

Specific Comments on the SBA Field Study

1. Table of Contents

Candidates have mastered this section. A few of them forgot to number the pages of the report.

2. Location of the Field Study

At least two maps are required. One should show the territory with the study site highlighted. The other should be a large-scale map, not a plan of the study area, its immediate environs, and relevant features such as roads, rivers and settlements.

Maps should be outlined in ink and include a key, north arrow, scale and a given title. The use of appropriate contours could enhance the presentation. Marks are not awarded for photocopied and computer-generated maps.

Many of the candidates seemed to have understood these guidelines and were able to obtain most of the marks allocated for this section.

3. Aims

Generally, the aims were clear and concise, and allowed the candidates scope for data collection in the field. Too many candidates, however, had aims which were too broad, so that they had difficulty in producing relevant data.

Examples of two good aims were:

- To identify and explain the causes and consequences of coastal pollution.
- To describe the problems affecting peasant farmers and to suggest solutions for them.

Teachers are advised to assist candidates in the construction of suitable aims.

4. Collection of Data (How, When, Where)

Most candidates did well in this section. However, some did not state precisely the specific location where the data was collected. Additionally, candidates should describe briefly, specific activities conducted in the field/study area. The use of text books and the internet must not be the main source of data.

5. Presentation of Data

This section continues to be a challenge to many candidates. The data presented should reflect the aim of the study; and requires candidates to integrate the illustrations into the account. This involves their appropriate placement and reference to them.

Candidates should include at least three types of illustrations (graphs, tables, photographs, and field sketches).

There were relevant photographs but many candidates lost marks because of (a) lack of variety and (b) photographs were not labelled, titled and referred to in the analysis of data. In a few cases, candidates presented pictures from web-sites that were unrelated to the aim of the study.

The written accounts should not be limited to either a collection of comments or descriptions of graphs and tables. Candidates are required to present a detailed discussion about their findings, and show a clear logical development of points.

6. Statement of Conclusion

The conclusion should relate to the aim of the study. Candidates are required to summarize their findings; and new information should not be presented in this section.

Many of the candidates were unable to provide satisfactory concluding statements.

7. Bibliography

Most candidates provided a correct bibliography. However, whenever sources are used rather than or in addition to texts, candidates should use the term sources.

Basic Proficiency

General Comments

As in previous years, the candidates who wrote the Basic Proficiency Examination continued to perform very poorly in all areas of the paper. There is little evidence that they have acquired even some of the basic skills required to answer questions for some sections of the paper and they were quite limited in their understanding of standard geographical concepts. In general, candidates found difficulty in understanding what was required in some of the questions.

Paper 02

Question 1

The question tested the basic skills of Map Reading. The responses for the question were poor. It appears that candidates had difficulty interpreting the map. The majority of candidates scored less than 40 per cent of the marks available for this question. A few candidates did not attempt this question although it was a compulsory question.

In Part (a), most candidates were unable to state the six-figure grid reference correctly. A few candidates were able to state the four-figure grid reference accurately while others stated the northing before the easting.

In Part (b), some candidates were able to give the correct answer for the distance. A few candidates gave their answer using a combination of kilometres and miles.

In Part (c), very few candidates gave the correct answer for the grid bearing. A few candidates gave compass direction while some did not attempt the question.

In Part (d) (i), a fair number of candidates were able to name the Great Morass or another area of a large swamp.

In Part (d) (ii), the majority of the candidates used the information in the key in order to name a large town but not the map itself. Thus, the majority of the candidates named St. Ann's Bay as a large town.

In Part (e), many candidates were able to score at least one mark for this question. Some of the shadings were placed above the section and in others, only lines were used. The shadings were not done accurately. Selected areas were too wide or misplaced.

In Part (f), the majority of the candidates were able to name the types of vegetation. Some candidates named types of vegetation found too far inland from the coast. A few candidates named sugar cane and tobacco.

In Part (g) (i), only a few candidates were able to identify the correct grid square where a river flows underground.

In Part (h) (i), many candidates used previous knowledge of the topic to provide an answer instead of using map evidence. Some of the answers included economic benefits. However, Part (ii) was done fairly well. Candidates were able to identify at least one correct attraction.

Question 2

The candidates' responses to this question were generally very poor as the majority of them scored less than 30 per cent of the marks available for this question. The candidates were not familiar with the map of the Caribbean

and adjacent plates. Their ability to draw and label diagrams accurately was also below standard. In addition, they seemed to have very little knowledge of the topic.

In Part (a) (i), most of the candidates could only name the South American Plate correctly while in (ii), most of them had difficulty stating the cardinal points of the compass correctly. Instead, they used terms such as “left” and “right” or “up” and “down”. Less than half of them were able to give the correct answer, ‘east’.

In Part (b), the candidates displayed very poor drawing and labelling skills; consequently, the diagrams presented were very difficult to interpret.

Most of the candidates were unable to give a precise description of the formation of the features drawn. Some candidates were unable to distinguish between ‘folding’ and ‘plate margins’ or between ‘folding’ and ‘faulting’.

Part (c) was extremely challenging for most of the candidates, and given their very limited knowledge of the topic, they could not write much. Their descriptions did not relate to earthquakes.

Question 3

The general performance of the candidates was poor. Candidates seemed to have moderate knowledge of the concepts. This question seemed to be a popular one with two-thirds of the candidates attempting it. They had adequate knowledge of Part (b) but were unable to describe thoroughly. No detailed information was given.

In Part (a) (i), the candidates interpreted the diagram incorrectly. They identified it as a stage of the river, that is, youthful stage while for Part (a) (ii), they had difficulty identifying C; some attempted B and C correctly. Candidates did well in Part (a) (iii).

Candidates earned most of their marks on Part (b). However, they could not give accurate descriptions.

In Part (c) (i), candidates’ responses indicated some confusion. They interpreted constructive and destructive waves as longshore drift. Facts were not given and explanations were limited. For Part (ii), some candidates were certainly off track. In many instances, they referred to pollution and fishing activities rather than man’s direct impact. Very few candidates responded to this part correctly. The term ‘altered’ seemed to have influenced their responses and therefore, they were unable to answer adequately.

Question 4

This was not a popular question. Some candidates were unable to score any marks.

In Part (a) (i), most candidates were unable to identify the climatic types shown on the map. Many of them did not score any marks in this section. For Part (ii), only a few candidates named or labelled correctly. They gave general answers such as ‘Russia’ and ‘Canada’.

Some candidates scored marks in Part (b) (ii). Candidates did not have a clear understanding of weather elements and the function of weather instruments. They seemed confused and could not describe accurately.

Part (c) was poorly done. Candidates wrote about vegetation instead of climatic type.

In Part (d), some candidates stated the function of the barometer. They described it but mixed it with the concept of ‘hygrometer’. Only a few candidates made a link between the rise and fall of pressure.

In Part (e), a few candidates gave descriptions of the elements of weather rather than the explanation. The majority of candidates did not respond to this part.

Question 5

The general performance of the candidates in this question was very poor as most of them attained less than 30 per cent of the marks available for the question.

In Part (a) (i), very few candidates were able to label the map correctly. In many instances, the areas shaded were either too large or incorrect and in (ii), many candidates named continents instead of specific areas.

In Part (b), only a few candidates were able to score marks in this section. Only a few were able to identify planting trees.

For Part (c), more candidates were able to score marks in this section, although many were unable to fully describe the technique identified.

Many candidates did not attempt Part (d). The overall performance was unsatisfactory.

Question 6

The number of responses from this question was high. A significant proportion of the candidates scored between 30 and 50 per cent of the marks.

Most candidates responded correctly to Parts (a) (i), (ii), (iv) and (vi). They interpreted the table correctly although Part (a) (ii) was a bit difficult for candidates because it involved calculation. Evidently, candidates lacked practice in this type of question because very few candidates were able to score marks.

In Part (b), most candidates were able to state the reasons, but no development was done. Most of the marks were credited for the statement.

Some candidates misinterpreted Part (c) which was poorly done. Candidates did not have a clear understanding of the concept and rather than dealing with industry, they dealt with schools or values. A significant number of candidates did not attempt this question.

Question 7

This was not a popular question, with just about 30 per cent of the candidates choosing it. Overall, the responses to this question were inadequate. Candidates obtained a wide range of scores.

In Part (a) (i), only some candidates drew bar graphs and histograms. The bar graph was not accurately drawn and labelled. Very few candidates gave the bar graph a title. Parts (a) (ii) and (iii) were done fairly well.

For Part (b) (i) candidates did not clearly understand the question. Some attempted two problems faced by both types of cattle and dairy and these were not described thoroughly.

In Part (b) (ii), the overall scores were very low. Some candidates gave measures used outside of the Caribbean.

Few candidates answered Part (c) correctly. There was some confusion with other industries, for example, fishing and tourism. The majority of candidates were unable to state the reasons.

Question 8

Over 40 per cent of the candidates attempted this question.

The responses were fairly well done. The majority of these candidates scored between 30 and 50 per cent of the available marks.

Most of the candidates were able to answer Parts (a) (i), (iii) and (v) correctly. The units and the zeros were omitted by several candidates.

In Part (b) (i), most candidates were able to state at least one problem but were unable to give a full description. Only a few candidates were able to list measures to conserve fish stocks. A few others listed methods of preserving fish instead of conserving them.

For Part (c), only a few candidates were able to expand on the answers given to earn maximum marks. Many candidates only listed and others did not attempt the question.

Question 9

An extremely small number of candidates attempted this question. Their performance was fair. Most of the marks were earned in Part (a).

In Part (a), candidates interpreted the map satisfactorily. Some of them earned maximum marks; however, Part (a) (v) seemed to pose difficulty to many of the candidates.

In Part (b), many of the sketch maps were not satisfactorily drawn. Very few candidates identified roads on the maps. The key was also missing from most of the maps that were drawn. In most cases, the descriptions were not fully developed.

Part (c) (i) was not properly done by the candidates. Many of them described urban-rural migration. It appeared that many candidates were not familiar with the term 'population distribution' as many of the responses did not relate to the topic. Very few candidates earned marks in this section. Several of them did not attempt this part of the question.

C A R I B B E A N E X A M I N A T I O N S C O U N C I L

**REPORT ON CANDIDATES' WORK IN THE
SECONDARY EDUCATION CERTIFICATE EXAMINATION
MAY/JUNE 2006**

GEOGRAPHY

GEOGRAPHY
GENERAL AND BASIC PROFICIENCY EXAMINATION
JUNE 2006
GENERAL COMMENTS

In the 2006 CSEC Examinations, 13 851 candidates registered for the General Proficiency Level and 313 for the Basic Proficiency Level. This represents a decrease in entries of 234 (1.66 per cent) at the General Proficiency Level and 309 (49.7 per cent) at the Basic Proficiency Level compared to 2005.

The number of candidates earning Grades I-III at the General Proficiency Level was 53 per cent, a decrease of 5 per cent compared to 2005 while at the Basic Proficiency Level it was 16 per cent, an increase of 2 per cent over 2005.

GENERAL PROFICIENCY

Question 1

This question was poorly done by the majority of the candidates with over 75 per cent of them earning 0-9 of the maximum 28 marks.

Parts (a) and (b) were generally well done, however a number of candidates wrote the incorrect unit or gave no unit at all for (a).

In Part (c) many candidates seemed to be unfamiliar with the term grid bearing and so earned partial credit.

In Part (d) more than half of the candidates earned 0-2 of the five available marks because of their inability to accurately plot the slope and accurately locate points on the grid.

In Part (e) many candidates could not name the type of slope. While many were able to describe it, some were unable to distinguish the top from the bottom.

In Part (f) many candidates seemed unfamiliar with the term 'landform' and were unable to identify the landform. Responses given included contour heights and distance measurements.

While most candidates were able to give the correct values for Part (g), many did not give the correct unit.

The inability to calculate a gradient caused many candidates to lose marks in Part (h).

Part (i) was well done by the majority of candidates.

For Part (j) most candidates were able to identify the main drainage pattern but failed to describe any other features.

In Part (l) many candidates were unable to explain the link between the relief of the area and the route of the main road. Instead, many made general statements about the relationship between roads and settlement, and roads and land use.

Question 2

This question tested the candidates' understanding of folding and faulting and the related features, plate tectonics and artesian basins. Approximately 30 per cent of the candidates earned at least 15 marks in this question.

Part (a) was not generally well done. Most candidates were able to draw the shape of an anticline but many were unable to label the bedding planes and limbs.

Part (b) was fairly well done but some had difficulty in defining crustal plate and while most knew that a fault is a fracture, many failed to mention the displacement aspect of the feature.

Part (c) was well done by the majority of the candidates.

Answers to Part (d) were generally unsatisfactory, and most candidates failed to make reference to the Caribbean and explanations were generally too vague.

Some candidates suggested that climate, air currents, and heating and cooling of the land caused earthquakes and volcanoes.

Part (e) was generally well done.

While Part (f) was generally well done, some candidates were unaware of the structure of artesian basins and some thought that they were related to plate tectonics.

Question 3

This question focused on river systems, weathering, and coastal features and processes. The performance was poor with over 50 per cent earning less than 10 marks.

Part (a) was poorly done as many candidates gave answers such as 'river shed' for (i), deferred junction for (ii) and flood plain and dendritic pattern for (iii). The correct answers were (i) watershed, (ii) confluence and (iii) drainage basin.

In Part (b) (i) many candidates were unable to define corrasion and often confused it with attrition.

For Part (b) (ii) most were unable to provide an acceptable definition of 'distributary' and often confused this with 'tributary'.

For Part (c) many candidates were able to give two ways by which a river's energy is used up but most failed to mention overcoming friction. Several indicated that a river used its energy to deposit material, to generate electricity and even to wash clothes.

In Part (d) many candidates showed a lack of understanding of weathering. Many did not understand the concept of mechanical/physical weathering. Many could not explain how trees caused weathering or how freeze-thaw or carbonation was caused.

In Part (e) (i) many candidates were unable to explain how a wide beach could protect a coast from wave erosion. Instead many discussed coral reefs and destructive and constructive waves.

In (e) (ii) candidates were required to explain how bays and headlands develop, but many discussed wave-cut platforms, permeable and impermeable rocks and constructive and destructive waves. A number of candidates described the appearance of the features instead of explaining their formation.

Question 4

This question tested candidates' understanding of selected Caribbean weather systems, and the factors that contribute to variations in types of climate. It also tested their ability to interpret weather data.

Part (a) was not well done. While most students were able to correctly draw the pattern of isobars depicting a hurricane, few were able to assign realistic values to the isobars. Many were unable to draw correctly the symbol used to represent the eye of a hurricane.

Part (b) was generally well done. Most candidates were able to state at least one condition favouring the development of hurricanes. Most were also aware of the general direction of movement of tropical waves as well as the weather associated with them.

Candidates performed reasonably well on Part (c).

In Part (d), while most candidates were aware that the tropical location of the Caribbean is responsible for its high temperatures, many were unable to explain how latitude affects temperature.

For Part (e) many candidates were able to identify distance from the sea as the cause of extremes of temperatures in interior regions. However, the majority of candidates failed to explain why this was so.

In Part (f) (i), many candidates were unable to interpret the temperature readings of the wet and dry bulb thermometers. In Part (ii) many could not explain their answer.

On the whole this was not a popular question and was attempted by approximately 15 per cent of candidates. The performance on the question was poor with approximately 73 per cent earning 0-9 marks out of a maximum 24.

Question 5

This question tested candidates' understanding of vegetation types, and the relationship between vegetation and climate.

Part (a) of the question was generally well done. Some candidates however, relied on previous knowledge and ignored the stimulus material provided on the map.

In Part (b) many candidates were unfamiliar with the term 'species' as used in the question, and many interpreted it as animal species instead of plant. There was a lack of knowledge with regard to examples of trees and plants. Many coined a variety of descriptive terms such as 'nail shaped', 'pointed', 'triangular' and 'Christmas tree' to illustrate the appearance of the leaves and shape of the trees. Many described equatorial forests.

In Part (c), candidates realized that the canopy layer blocked sunlight, but few were able to explain the impact on the layers of vegetation below. Many candidates also described the canopy layer and the interception of rainfall but were unable to expand their answers.

Developing comparisons continue to present challenges and many candidates simply gave descriptions of the two grasslands for Part (d). Many simply lacked the basic knowledge. Candidates were often unable to answer questions related to climate and were unable to accurately identify characteristics of climate.

In Part (e) some candidates suggested that humus was produced by parent material. While many had some idea as to how parent material influences soil development, most did not develop their responses adequately.

Candidates are still having problems responding to words such as ‘describe’, ‘explain’ and ‘compare’ resulting in very vague answers.

Question 6

This question was designed to test candidates’ understanding of the properties of soil, the influence of climate on soil development, soil erosion and methods of soil conservation.

The question was attempted by approximately 27 per cent of the candidates. Approximately 60 per cent of these candidates earned less than 9 of the maximum 24 marks.

In Part (a) the majority of candidates were able to draw and accurately label the chernozem soil profile. However, many of them drew a generalized profile rather than identifying the ‘distinguishing features’ of the chernozem.

Part (b) (i) was fairly well done. Definitions of leaching and illuviation were clearly given. However, although the direction of leaching was fairly well known, many candidates did not indicate ‘in solution’. Too many candidates were unclear about illuviation, often confusing it with capillary action.

Most candidates earned full marks on (b) (ii) where they were able to accurately state three components of soil.

In Part (c) the reasons for the colour of the A horizon of the podzol were often not well known. Leaching was recognized as the dominant process but responses were incomplete since the soil colour was not linked to the minerals leached (iron and aluminium) and the remaining component, that is, silica was seldom identified.

Part (d) posed the greatest level of difficulty for most candidates. Responses were often too general. Too many candidates interpreted soil development as soil erosion. The better candidates were able to explain clearly the influence of climate on soil-forming processes such as leaching and capillarity as well as indirect influences through vegetation and rates of decomposition of organic matter.

Part (e) was generally well done. Candidates were able to describe the negative impact of over-grazing on the soil.

In general Part (f) was also well done. The better candidates drew well-labeled diagrams to illustrate the soil conservation methods. However, some candidates seemed unclear as to how the methods given could prevent soil erosion.

Question 7

This question tested candidates’ understanding of farming systems in the Caribbean and the USA, as well as factors which have contributed to changes in large scale commercial agriculture.

Part (a) was correctly answered by a majority of the candidates. However some confused ‘percentage of world production’ with ‘percentage of world exports’ which led to an incorrect answer for (i).

Part (b) was not well done and many candidates gave a list of farm products instead of farming systems.

Many **incorrect** spellings were noted, including ‘pheasant’ and ‘pleasant’ for ‘peasant’, ‘areable’ and ‘arabel’ for ‘arable’ and ‘peitorial’ and ‘pastorial’ for ‘pastoral’.

In (c) (i) (a), most of the candidates were unable to indicate the range in size of the farms and only used terms such as ‘small’ and ‘large’. Very few discussed size in terms of the number of animals on the farm.

Part (c) (i) (b) was fairly well done by most candidates.

Many candidates appeared not to understand the term 'marketing arrangements' and so did not perform very well in (c) (i) c).

Part (c) (ii) was poorly done and most candidates misinterpreted the question or omitted it. Many candidates described the factors which contributed to changes in large scale commercial agriculture but failed to explain how they contributed to the changes.

Question 8

This question tested candidates' understanding of the factors which have contributed to the growth and development of the tourism, garment and fishing industries in the Caribbean. It also tested knowledge of the major causes of pollution in the Caribbean.

This was the most popular question and over 60% of those attempting it gave satisfactory responses.

Part (a) of the question was generally well done. However, some candidates drew bar graphs instead of line graphs while some drew graphs in their answer booklets instead of on the graph paper provided. Many plotted the points correctly but did not connect them with a line.

Part (b) (i) was poorly done. The majority of the candidates were unable to name important fishing areas in the Caribbean.

Part (b) (ii) required candidates to give descriptions of the major causes of pollution. This was generally well done, however some identified types of pollution rather than causes, while others spent much time commenting on the effects of the different types of pollution.

Part (c) (i) was divided into three sub-parts, a), b), c). In a), accessibility was poorly done. While many candidates focused on easy accessibility they gave little or no explanation on how it influenced tourism development in the Caribbean. In b) climate was fairly well answered. Many candidates compared the low temperatures of the tourists' home countries with the high temperatures of the Caribbean. Some merely described the climate of the Caribbean as 'nice' or 'lovely' and earned no credit. In c) government support was generally well done by the majority of candidates. However, some candidates only stated that government support for the tourist industry was 'good' or 'reliable' without providing examples or developing the point.

In Part (c) (ii) candidates were required to explain two major factors which have influenced the garment industry in the Caribbean. This was poorly done as few candidates developed their answers.

Part (c) (iii) was fairly well done as many candidates displayed a wide knowledge of factors that have contributed to the growth of the fishing industry. However, while many elaborated on the physical factors, the human factors were not well developed.

Question 9

This question was reasonably popular with the candidates.

Part (a) was generally well done but weaker candidates were unable to interpret the graph correctly.

The performance in Part (b) (i) was unsatisfactory. Most candidates were unable to distinguish between 'renewable' and 'non-renewable' resources.

Part (b) (ii) was generally well done. However some candidates merely listed two problems affecting the fishing industry when they were required to describe them.

Part (c) (i) was generally poorly done and many candidates failed to earn any marks. Many failed to identify an industry and just gave a general description of the factors. Some gave descriptions of how bauxite or oil is formed and mined.

In Part (c) (ii) many candidates did not emphasize the importance of conservation of natural resources.

In Part (c) (iii) many students described government policies to develop agriculture rather than food processing. Candidates should have included, for example, the building of industrial estates, skills training, development of standards, taxes and bans on importation of some goods.

Question 10

This question tested candidates' understanding of trading policies and patterns, along with the development of settlement.

Part (a) was well done and most candidates were able to draw the divided circle.

Part (b) (i) was poorly done, as few candidates were able to define the term 'urbanization'. The majority of candidates responded by giving the definition of 'rural to urban migration'.

In Part (b) (ii) candidates were unable to identify the policies of the European Union (EU) such as international free trade, removing quotas and preferential markets. Consequently, they were unable to explain the influence of these policies.

In Part (c) (i) many candidates displayed a lack of practical skills, as few were able to draw proper sketch maps, although most were able to provide reasons for the location of the capital city.

In (c) (ii) few candidates were able to develop their response on the factors identified as they related to growth and development of the capital city.

Few candidates attempted to give reasons why countries sought to diversify their trading patterns in Part (c) (iii).

BASIC PROFICIENCY

Question 1

For this question the performance of the candidates was weak as the majority of them earned between 0 and 4 marks. Candidates lacked basic map-reading skills.

In Part (a) (i) most candidates were unable to state the correct height of Nevis Peak. When an answer was given, in most cases the unit was incorrect or omitted.

The majority of the candidates were unable to calculate the bearing in Part (b). Some gave compass directions and grid references.

In Part (c) (i) while some candidates were able to identify the natural feature many gave 'sand' instead of 'beach' as the answer.

Part (c) (ii) was fairly well done as many were able to identify the man-made feature.

Part (d) was not well done, as the majority of the candidates were unable to name the crop shown on the map. Several incorrect responses were given including trees, forests, cultivation and plantations.

Many candidates were able to give the correct compass direction in Part (e) and so this part was well done.

In Part (f) most candidates were able to identify the parish boundary.

Part (h) was poorly done as most candidates displayed a poor understanding of the concept 'drainage'. A number of students confused the key for drainage with that for footpaths and cultivation.

The general response to (f) (i) was inadequate. Answers were often not confined to villages along the secondary road as required by the question.

Many candidates did not attempt Part (j). Not many candidates correctly identified the forested regions and even fewer gave reasons for the presence or absence of forests in the different areas.

Question 2

Approximately 50 per cent of the candidates attempted this question, which was not well done. The majority earned between 0 and 4 marks.

Many candidates were able to score at least one mark in Part (a) where 'cave' was the coastal feature most easily identified. Most candidates were unable to identify the headland.

Part (b) was not well done as the majority of candidates were only able to score one mark. Most were unable to explain how the feature was formed.

For Part (c) many candidates were unable to explain the formation of coral reefs. Some candidates stated the importance of coral reefs for which they earned no credit.

Part (d) was poorly done. Most of the candidates were unable to give adequate descriptions of the coastal features (spit, bay, wave-cut platform).

Question 3

There was a very low response to this question and most of those who attempted it were unable to provide satisfactory answers.

Many candidates were able to score two out of the three marks for Part (a). However, the majority failed to identify the distributaries in the diagram.

In Part (b) the descriptions given by candidates for the volcanic features were too vague.

Many candidates only gave a general explanation of earthquakes but were unable to explain them in relation to the Eastern Caribbean.

Question 4

This question had a high response rate.

Part (a) (i) was not well done and most candidates were only able to score one out of three marks. Candidates had much difficulty in locating areas of Equatorial forest and Tropical and Temperate grasslands.

In Part (a) (ii) candidates were asked to name regions where Equatorial forest and Tropical grasslands were found. This was generally poorly done as most of the candidates named continents rather than specific areas.

Part (b) was fairly well done as the majority of candidates were able to define 'soil profile' and 'soil conservation'. However, very few defined parent material correctly.

Candidates performed fairly well in Part(c).

Question 5

This question had a high response rate but most candidates showed a lack of knowledge of the areas tested.

In Part (a) most candidates were able to state correctly the lowest daily temperature and the average temperature. However, many were unable to give the daily range of temperature. Many added instead of subtracting the temperatures.

Most candidates earned full marks for Part (b) which required them to complete a line graph.

In Part (c) the majority of candidates were unable to adequately define the terms 'anticline', 'rain shadow area' and 'prevailing wind'.

In Part (d) while candidates demonstrated some knowledge of cold fronts, most were unable to explain how they produced rainfall in the Caribbean.

Not many candidates attempted Part (e) and many of those who did were unable to explain the annual distribution of rainfall in Equatorial climates.

Question 6

This question had a high response and the majority of candidates earned between 5 and 8 marks.

Part (a) was fairly well answered by the majority of candidates, however, many seem to need practice in reading and interpreting tables.

Generally, Parts (b) (i) and (ii) were reasonably well done and many candidates were able to score full marks.

In (b) (iii) many candidates were unable to state advantages that small farmers gained from practising mixed cropping.

Many candidates did not attempt Part (c). Many were unable to make adequate comparisons and instead provided some very general comments. Many did not name the Caribbean country with which they were comparing wheat farming in the Canadian Prairies.

Question 7

The majority of candidates who attempted Part (a) performed fairly well. However some drew a line graph rather than a bar graph.

In (b) (i) the majority of the candidates correctly named at least one of the Caribbean countries where pastoral farming is a significant activity.

In (b) (ii) many candidates listed problems associated with arable farming instead of pastoral farming.

Many candidates did not attempt Part (c) and the majority of those who attempted it gave inadequate answers.

Question 8

Part (a) of this question was fairly well done as was Part (b) (i). Most candidates earned full marks in Part (b) (i).

In (b) (ii) the descriptions of factors contributing to the development of the tourist industry were inadequate. The majority of candidates only listed these factors.

Many candidates did not attempt Part (c). Most of those who attempted this part of the question gave inadequate responses or were too general in their comments.

Question 9

Although only a few candidates attempted this question, most of those who did performed reasonably well.

In Part (a) candidates drew good outlines of the Caribbean territories and were able to name the capital city and other town of the territory selected. However, many of them did not accurately locate these areas. Some candidates omitted the title and key.

Most candidates were able to list two functions of a city in Part (b) (i).

In (b) (ii) many candidates were able to name only two factors that influence the distribution of population in the Caribbean, but were unable to describe them.

In Part (c) many candidates were unable to provide adequate explanations.

SCHOOL-BASED ASSESSMENT

GENERAL COMMENTS

Generally the SBAs were satisfactory and for the most part, the marks submitted by teachers were fairly reliable.. This year over 70 per cent of the SBA's received were without the individual mark sheets. It is important that each study is submitted with an individual mark sheet.

The examiners noted that many SBAs contained too much secondary data. Many were also padded with pages of irrelevant photographs and pictures scanned from magazines.

It has also been observed over the years that many candidates were submitting reports that greatly exceeded the stipulated word limit. For examinations after 2006, a penalty will be imposed on any candidate who exceeds the word limit by more than 150 words.

Table of Contents

The majority of candidates have mastered this part of the study. Most included the key sections of the study in the table of contents.

Location Maps

This part was done moderately well. Candidates should demonstrate mapping skills by drawing at least two maps to show location of the study area and these should be finished in ink. Guidelines on this are provided in the syllabus.

If maps are downloaded from the internet or digital sources are used, all irrelevant information should be removed from them and they should be manipulated to make them relevant to the study. They should be given an appropriate title and other key map elements should be inserted.

The Aim

The key to a good study is the selection of appropriate and achievable aims. These should be clear, simple, measurable and geographical. A number of candidates did not do well because their aims were too vague or not appropriate.

Data Collection

This was generally well done and most candidates earned full marks.

Data Presentation

Too many candidates separated the illustrations from the written account. Illustrations should be well integrated into the account, that is, placed as near as possible to the relevant part of the account that they are intended to illustrate. A variety of illustrations should be used and these should be relevant, given appropriate titles and labeled.

Many candidates lost marks because their illustrations, including photographs, were not titled, labeled or referred to in the written account.

Copied illustrations, for example, from text books, magazines and web sites should be discouraged. Candidates should be encouraged to make field sketches and use photographs taken on the field trips.

The Conclusion

This should be a summary of the findings as they relate to the aims of the study. Too many candidates introduced new material in their summaries.

The Bibliography

More than half of the SBAs presented had bibliographies that did not follow a standard format. While the syllabus does not recommend a particular format, popular conventions are acceptable. Candidates should be guided by the format of references used in the syllabus document.

PAPER 03/2 - ALTERNATIVE TO THE SBA

Question 1

Part (a) was well done and most of the candidates earned the two marks allocated for this question. Some candidates omitted the key.

In Part (b) while the majority of candidates earned at least 2 out of 4 marks, many of them did not accurately locate the features in the frame provided. Many seemed unable to use the grid lines as reference points.

Question 2

Question two was poorly done. The majority of candidates demonstrated an inability to write suitable research questions and thus earned no marks.

Question 3

In Part (a) many of the candidates had only a vague idea of what was required and did not use the headings given to guide their responses.

Many candidates displayed a lack of knowledge of how to conduct field research in terms of methods of enquiry and data collection.

Very few candidates provided examples of the results they could obtain.

In Part (b) (i) most candidates were able to state two problems they could encounter in conducting the research. However, some gave problems that the villagers or government would face rather than the researcher.

In (b) (ii) some of the solutions given for the problems identified in (b) (i) were impractical or completely irrelevant.

Question 4

Most of the candidates were able to provide good sketches of the coastline shown in Part (a). However, some drew individual sketches of the various features in the photograph and some traced the photograph.

Many of the candidates were able to earn at least two of the three marks allocated to Part (b). However, some gave general descriptions of the work of waves without relating this to the features shown in the photograph.

Question 5

Most candidates performed well on Part (a). Most demonstrated the ability to read and summarise the information given in the table.

Part (b) was poorly done. Candidates needed to be more analytical rather than merely listing facts from the table. As a result, many could not comment on the importance of the trade pattern shown in the table.

Question 6

In Question 6, most of the candidates were unable to write the bibliography correctly. Some candidates wrote paragraphs or wrote the information in the form of a table.

C A R I B B E A N E X A M I N A T I O N S C O U N C I L

**REPORT ON CANDIDATES' WORK IN THE
SECONDARY EDUCATION CERTIFICATE EXAMINATION
MAY/JUNE 2007**

GEOGRAPHY

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GEOGRAPHY
GENERAL PROFICIENCY EXAMINATION
MAY/JUNE 2007
GENERAL COMMENTS

This year 13 362 candidates wrote the CSEC Examinations. This was a slight decrease compared with 2006 when 13 851 wrote. Overall the performance in 2007 was better than that in 2006.

Seventy per cent of the candidates earned Grades I - III, an increase of 17 per cent over 2006.

DETAILED COMMENTS

Paper 01

Paper 01 consisted of 60 multiple-choice items. Some improvement was noted in the performance in 2007 with the mean score increasing from 57.8 per cent in 2006 to 63.5 per cent in 2007.

Paper 02

Question 1

Generally the overall performance of the candidates showed some improvement over last year.

Part (a) tested knowledge of grid references and this was generally well done. Errors included the use of punctuation marks between easting and northing and the reversal of the easting and northing.

In Part (b), while the performance was generally satisfactory, some candidates seemed not to understand the term "to the nearest 100 m".

In Part (c), many of the candidates were able to insert the features correctly on the grid. However, many lost marks because they did not label the features or use a key.

The majority of candidates wrote good responses to Part (d), however, in some cases candidates named features on the coast instead of off the coast.

Part (e) required candidates to calculate a gradient. While most candidates were able to give the correct formula, many did not convert the horizontal distance to feet, the same unit as the height.

For Part (f), approximately half of the candidates were able to give a correct bearing. Many lost marks due to inaccurate measurements or because they gave compass directions instead.

In Part (g), many candidates seemed not to understand the concept of distribution while some tried to 'explain' rather than 'describe'.

For Part (h), the majority of candidates were able to identify two landforms as required by the question. However, many did not earn full marks because instead of describing the features as observed on the map they gave textbook descriptions.

Part (i) required candidates to account for the distribution of tracks and footpaths on the map. Many were able to describe the distribution but could not account for it.

Performance on Part (j) was unsatisfactory. Candidates were required to suggest, based on map evidence, what physical features accounted for the growth of Basseterre. Many seemed not to understand the concept of a 'physical feature' and listed various services offered by the town as reasons for growth.

It is clear that map reading is a skill that many students have not mastered. It is suggested that this aspect of Geography be taught throughout the school (from first form to fifth form) and on a regular basis.

Question 2

This question tested candidates' knowledge of plates, vulcanicity, drainage patterns and longshore drift. The overall performance was satisfactory.

Part (a) was generally well done although many candidates were unable to identify the Cocos Plate.

In Part (b) (i), most candidates were able to sketch the two drainage patterns but many had difficulty in differentiating between dendritic and trellis. In attempting to state where each type developed, some candidates either named countries or a section of the course of the river. The well-prepared candidates were able to identify the rock structure. Too many candidates were convinced that in dendritic drainage the "main river broke up into tributaries" or "flowed into tributaries".

Part (b) (ii) was generally poorly done. While most candidates were familiar with the terms 'swash' and 'backwash' too many were unable to describe the process of longshore drift.

Part (c) (i) was generally well done but weaker candidates were unable to establish the relationship between the type of lava and the shape of the volcano.

In Part (c) (ii), while most candidates were able to state the direction of movement of plates along transform margins, many were unable to explain the occurrence of earthquakes along these margins.

In Part (c) (iii), only a few candidates were able to give a proper explanation of how explosive volcanos were formed.

Question 3

Although this was a very popular question, it was not well answered. The question tested Specific Objectives 6, 7, 8, 14 and 15 of the syllabus.

Part (a) of the question was generally quite well done. In Part (b), many candidates were unable to define the term 'denudation'. Most candidates were able to define 'weathering', although some confused it with weather. In (b) (ii), too many candidates were unable to describe adequately the process of freeze-thaw.

Parts (c) (ii) and (iii) presented the most difficulty. In (c) (ii), many candidates suggested that stalagmites and stalactites were formed from freezing of water seeping into the caves. Some were unable to differentiate between stalactites and stalagmites, and many did not explain the process of formation. In (c) (iii) which was also poorly done, too many candidates were unable to give an adequate explanation for the development of cockpit (karst) landscapes.

Question 4

This question tested candidates' knowledge on aspects of tropical continental climate, vegetation, soils, ecosystems and hurricanes.

While Part (a) was fairly well done, some candidates were unable to calculate the annual temperature range and many were unable to identify the climate type.

In Part (b), many candidates wrote about the conditions in the eye of the hurricane but did not address the conditions associated with the passage of the hurricane.

Part (c) on ecosystems was generally well done. However, some candidates confused producers and consumers with manufacturing and markets.

The majority of candidates were able to give good answers for Part (d) (i) which required them to explain how the vegetation associated with tropical continental climates is adapted to the climate.

Part (d) (ii) was poorly done. Most candidates were unable to explain how climate influenced soil development in tropical continental areas.

Question 5

Question five tested candidates' knowledge of urbanization, its associated problems and rural to urban migration. This was a very popular question and the overall performance was good.

Part (a) was generally well done although some candidates tried to explain or describe the graph rather than answer the questions asked.

In Part (b), candidates were asked to define 'urbanization'. Generally this was poorly done as many defined it as movement from rural to urban areas.

Part (c) was fairly well done. However, while most candidates were able to list problems associated with urbanization, many did not elaborate.

Candidates did well on (d) (i) which required them to explain why people move from rural areas to towns. However, (d) (ii) was poorly done as many candidates were unable to suggest how rural to urban migration could be reduced.

Question 6

This question tested knowledge of economic activities in the Caribbean, factors influencing location of manufacturing and challenges faced by Caribbean manufacturers in a global economy. Many candidates gave weak responses.

Generally, candidates were able to complete the graph in Part (a) (i), but (a) (ii) was poorly done.

Part (b) (i) was not well done. Many candidates were unable to give correct definitions and examples of primary and tertiary industries.

Candidates did well in Parts (b) (ii) and (iii).

In Part (c) (i), candidates were required to account for the widespread occurrence of either the garment industry or food processing in the Caribbean. Many interpreted this to mean the benefits gained rather than the factors influencing their development and thus scored poorly. Part (c) (ii) was also poorly done. While some candidates had some knowledge of the effect of globalization on Caribbean manufacturers, most were unable to present logical and unambiguous arguments.

Question 7

Most of the responses to this question on agriculture and ecotourism were poor.

Part (a) required candidates to read information from a table and this was done fairly well.

For Part (b) (i) many candidates wrote about tourism generally rather than about ecotourism.

In Part (b) (ii), most candidates were able to identify one problem associated with marketing that is faced by Caribbean farmers but many could not elaborate.

Part (c) called for a comparison between commercial arable farming in a Caribbean country and wheat farming in the Canadian Prairies. This was badly done. Many candidates did not have knowledge of the actual range of sizes of farms and so merely used the words 'big' and 'small'. In comparing climatic hazards, many attempted to describe the climates rather than the hazards. Generally, the comparisons for harvesting and labour were also poorly done.

Question 8

This question tested the candidates' knowledge of the impact of natural hazards and the precautions taken at the individual and governmental levels to reduce their impact. In addition, the question tested knowledge of how land-based activities could lead to coral reef destruction. This was a popular question and there were many good answers.

Part (a) (i) and (ii) were well done while answers to (iii) and (iv) were not so well done.

In Part (b) (i), candidates were required to define the term 'natural hazard', but many were unable to give adequate definitions. Some only gave examples.

Part (b) (ii) was well done as most were able to describe how one of the natural hazards given in the question could impact on Caribbean territories.

Part (c) (i) and (ii) were done satisfactorily. Weaker candidates were unable to distinguish between precautions taken at the level of the government and those taken at the level of the individual.

In Part (d), many candidates wrote generally about how coral reefs may be destroyed but failed to explain how land-based activities contributed to their destruction.

Question 9

This question tested the candidates' understanding of the impact of man's activities on the physical environment, and the measures employed to reduce this impact.

Generally, Part (a) was fairly well done although many candidates failed to label the axes or give a title to the graph. Most were able to draw the bars accurately using the scale provided. However, some ignored the incomplete graph provided and drew their own, resulting in poor graphs.

Generally, Parts (b) (i) and (ii) were well done. However, many did not use the terminology expected at this level, using terms like 'muck' to refer to car exhaust.

In Parts (c) (i), (ii) and (iii), most candidates identified measures but many were unable to fully expand on these.

In Part (c) (iii), many candidates wrote about sewage instead of solid waste, and thus did not earn full marks.

Question 10

Question ten tested knowledge of the greenhouse effect, global warming, the impact of tourism on coral reefs and consequences of coral reef destruction. Responses were generally quite satisfactory.

In Part (a), the majority of candidates were able to construct the pie chart with an appropriate title and with labels. A few were unable to measure the angles accurately.

Many candidates were unable to give clear definitions of the terms 'greenhouse effect' and 'global warming' as required in (b) (i). However (b) (ii), requiring candidates to state effects of global warming on the environment, was well done as most gained full marks.

There were some good responses to Parts (c) (i) and (ii) which focused on the impact of tourism on coral reefs and the consequences of coral reef destruction. This part was well done.

Part (d) required candidates to explain how deforestation contributes to global warming. This was the most challenging part of the question as many were unable to give adequate explanations.

Paper 03/1 (School-Based Assessment)

Topics chosen for the SBA were generally suitable, although some candidates chose topics that are not on the revised syllabus. Many teachers were too lenient and in some cases more marks were awarded for some sections than indicated in the rubric. More studies were within the required word limit this year. Many studies are still being submitted without the required documentation such as strategy sheets and individual mark sheets.

Table of Contents

In too many instances, the table of contents was not properly presented. In many cases, page numbers were missing or pages were incorrectly numbered.

Aim of Study

The majority of aims were satisfactory. However, some were too vague or general and did not allow for appropriate data collection and analysis. Proper field studies cannot be undertaken if aims are not clear and specific. Weak studies result if this critical aspect of the field work is not given sufficient thought. Guidance from the teacher is very important at this early stage.

Location of Study Area

Overall the quality of the maps produced was fair. However, many did not have the necessary elements of title, scale, key and north arrow. Many maps of the study area did not show enough detail and were often untidy and poorly presented. Maps should be finished in ink.

Methodology

While this section was satisfactorily done, in many cases, enough detail was not given on how the data were collected.

Presentation of Data

Many illustrations were not properly presented. Very often these were not given titles or labels. In some cases, the chosen illustrations were not suitable for the data that were being presented. Photographs were often overused and not relevant to the study. Ideally, presentation of data and analysis and discussion should not be separated.

Quality of Data

In many instances, the data collected were not sufficient to achieve the aims of the study or was not relevant. It should be noted that 'quality of data' is an aspect of the rubric and not a section of the report.

Analysis and Discussion

Discussion was often not well developed and coherent. In some instances, points were merely listed. In many cases, illustrations were not integrated into the report. It is important to remember that while candidates may undertake fieldwork as a group, the report should be done individually.

Conclusion

Some conclusions were inconsistent with the aims of the study and at times were too lengthy. New data should not be introduced in this section. Here, as in the analysis and discussion, many candidates listed points rather than present a discussion.

Communication of Information

This is an area of great concern. Far too many candidates are making grammatical and spelling errors. In some cases, writing was incoherent.

Bibliography

In some cases, candidates did not write the bibliography in alphabetical order of surname.

Paper 03/2 (Alternative to School-Based Assessment)

The general performance of candidates on this paper continues to be below the expected standard.

Question 1

Most candidates were able to draw the sketch maps required for this part of the question.

Question 2

Candidates were asked to frame a research question based on information given. Most of them were unable to perform this task adequately.

Question 3

This question was generally poorly done. Many candidates were unable to adequately describe how they would conduct fieldwork.

Question 4

Question four required candidates to draw a pie chart based on data given in a table. Many were unable to do the calculations needed for this task. Many used the protractors incorrectly or did not use them at all, thus producing inaccurate pie charts. Too many diagrams were untidy. The graph should be titled and appropriately labelled.

Question 5

Part (a) of this question was fairly well done as most candidates were able to draw the bar graphs. However, in Part (b), most candidates were unable to summarise the changes along the transect as shown in the table. Many were unable to comment on the significance of the changes.

Question 6

This question, which required candidates to present a bibliography, was poorly done.

Recommendations

Students should be given adequate practice in answering examination-type questions. Too many seem not to understand terms such as list, describe, explain, account for and compare.

Students should be encouraged to express themselves in clear, standard English and to avoid grammatical mistakes and misspellings.

Greater emphasis should be given to the understanding of basic geographical concepts .

Diagrams need to be tidy and to be given appropriate titles and labels.

Thorough preparation is needed for the sections on weather, climate, soils and map reading.

C A R I B B E A N E X A M I N A T I O N S C O U N C I L

**REPORT ON CANDIDATES' WORK IN THE
SECONDARY EDUCATION CERTIFICATE EXAMINATION
MAY/JUNE 2008**

GEOGRAPHY

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GEOGRAPHY
GENERAL PROFICIENCY EXAMINATION
MAY/JUNE 2008

GENERAL COMMENTS

This year, there were 12, 284 candidates writing the CSEC Geography examination. Almost the same number as in 2007 (which had 12, 161).

In Paper 2, Map-reading continues to be a challenge to the majority of candidates. In that paper, the popular questions in Sections C and D were well answered. The School Based Assessment projects suffered from Aims which were not specific. Many of the candidates writing the Alternative Paper 3/2 seem to have had no experience in doing research in the field and preparing a report.

In Paper 2, many candidates showed a weakness in using geographical vocabulary and understanding concepts. The mark allocation was not used as a guide to the length of the answer required. Some answers were too long while some were far too short. Candidates need to number their answers (and the parts thereof) to match the numbers on the question paper.

While 63.2 per cent of the candidates earned Grades I – III, there was a large number who wrote the examination although not ready.

DETAILED COMMENTS

Paper 01

Paper 01 comprised 60 multiple-choice questions. Performance was satisfactory. The mean score was 61.7 per cent. It was 63.5 per cent in 2007.

Paper 02

Question 1

This was a compulsory map-reading question worth 28 marks. Candidates showed lack of practice in map-reading. About 70 per cent earned less than 10 marks. Unfortunately the map was printed with some smudges, however, this did not affect any area needed to answer the question. Thus the smudging would not have affected the candidates' ability to answer any part of the question.

Part (a) (i) required a six-figure grid reference as the answer. Over 80 per cent of the candidates knew how to give the reference correctly - having the easting before the northing. Some of them lost marks for having the wrong decimal fractions or giving a four-figure reference. Candidates should know that, when there is a choice, the lower fraction is to be used. Others made errors in the sequence by placing the northing first or by putting punctuation marks between the easting and northing numbers or the letters E and N after the easting and northing numbers respectively.

Part (a) (ii) tested the candidates' ability to measure a curved line and use the scale to calculate the distance on the ground in kilometres and metres. Most were able to do so but some wasted time giving an answer in kilometres and then another in metres. Some failed to state the units while others seemed to have no concept of distance by giving an answer of 1500 kilometres.

Part (a) (iii) was well done. The task of measuring a bearing greater than 180 degrees posed no challenge to the majority of the candidates.

Part (a) (iv) was also well done though some candidates confused compass direction and bearing. Some did not know the 16-point compass. For example, some wrote of a “South East South direction”.

Part (b) provided a grid on which a sketch cross-section was to be drawn. This was not well done. Nearly half the candidates omitted this part and few of those who attempted it earned full marks, this, despite the fact that only a sketch cross-section was needed. Candidates should have identified the highest and lowest contour points on both sides of the valley and changes in the gradient, as shown by the spacing of the contours, bearing the two vertical intervals in mind. Practice in drawing accurate cross-sections would make this a simple question. Alternatively, practice in following a northing or easting and mentally “seeing” the land rise and fall would help.

Parts (c) (i) and (ii) tested the candidates’ ability to use the key. Only about 5 per cent got this part completely wrong. Errors were made in interpretation and the key’s style of the terms, “landform along the coast”, “landform” and “agricultural land use”. For example, a coastal landform, such as bay, instead of the landform along the coast (cliff) was identified or “cliff or quarry” was given as both are presented in the same line in the key. Many did not recognise ‘pasture’ as a form of agricultural land use but suggested ‘trees’ and ‘scrub’ or ‘forest plantation’.

Part (d) was not well done. Candidates were to describe the distribution of banana plantations on the map. Some attempted to account for the distribution, which was not necessary and earned no marks. Many candidates were vague in their descriptions (“along rivers”). If candidates would think of giving instructions to someone to make a model of the map and then directing the placement of the banana plantations on the model, their descriptions would improve.

Part (e) was also not well done. As in Part (d), descriptions were vague. The same advice applies. If candidates would think of giving instructions to someone to make a model of the map and then directing the placement of the types of settlement on the model, their descriptions would improve. Many gave general descriptions defining the types of settlement without reference to the map. Some listed examples but gave no description of the position. Some confused isolated and dispersed patterns.

Part (f) asked for a comparison of three features of the drainage in the areas east and west of the Rio Grande for a maximum of 6 marks. About 45 per cent earned 3 marks or more but approximately 40 per cent earned zero. Many candidates gave definitions of three drainage patterns but made no reference to examples on the map. Some gave examples from the east or west but made no comparison.

A surprisingly large number of candidates gave a comparison of relief and vegetation and of settlement. This may have been the result of misreading the question.

Question 2

This question tested a candidate’s ability to use data in a table, to describe the processes along plate margins, to explain the difference in the cross-sections of a river valley and to explain the formation of spits and tombolos. It was, by far, the most popular question in Section B yet less than 1 per cent earned over 20 marks from a maximum of 24. In all parts of the question, a better grasp of concepts and a better geographical vocabulary would have helped.

In Part (a), many candidates gained full marks in using the table. Some had difficulty calculating the number of landslides per square kilometre in Part (iii). Candidates should be encouraged to show their working whenever

making a calculation, rather than just giving the answer. On occasions, they may be credited for the process if an error is made in the calculation.

In Part (b) (i), most of the candidates identified two correct landforms formed at plate boundaries but some gave activities, such as earthquakes, folding and faulting. In Part (b) (ii), too many confused the terms convergent and divergent. Some also spoke of lava moving up between the plates not realising it is magma that does so. Magma produces lava on the surface.

Part (c) was not well done as many candidates dealt with changes in the long profile of the valley, instead of the cross-section in the upper and lower courses as required by the question. Long descriptions of the features found in the long profile, such as waterfalls, meanders and oxbow lakes, apart from being the wrong answers, indicated that the allocated 4 marks was not used as a guide.

In Part (d), candidates had a satisfactory understanding of the processes but were unable to earn full marks as they did not illustrate their explanations with well annotated diagrams. Some, in error, said spits and tombolos are the result of erosion. Some had diagrams showing a spit developing on a straight coast with no cause for deposition. Well drawn and fully annotated diagrams could have earned full marks.

Question 3

This question was not popular. It tested knowledge of coral reefs and also the candidate's ability to draw diagrams of meander features and to explain the formation of waterfalls and deltas. Performance was satisfactory and would have been better if geographical terms had been mastered.

In Part (a), candidates knew the terms but had difficulty showing them in a diagram. There was also the incorrect interchange of the terms "river cliff" and "river bluff", "point bar" and "slip-off slope".

Part (b), requiring a description of the conditions for coral growth and the nature of barrier reefs and fringing reefs, was generally well done. Some candidates did confuse "narrow" with "shallow", and "wide" with "deep" in describing the two types of reefs. Many failed to indicate that the reefs were formed by coral.

Part (c) was also well done but many candidates failed to earn full marks because they did not explain the processes fully. In explaining the formation of waterfalls many only considered resistant bands of rock in the river channel. On this point, some confused "resistant" with "impermeable". In explaining the formation of deltas, most ignored the deposition pattern of sediments and the role of distributaries and salt water. A strange error was a claim that deltas were formed by wave action.

Question 4

This was the least popular question in Section B. It tested the candidates' skill in using a table showing temperatures and relative humidity, their knowledge of Caribbean weather systems and of the adaptation of vegetation to two different climatic regions. Most of the answers were weak.

Parts (a) (i) and (ii) had satisfactory responses but in (iii) very few candidates recognised the inverse relationship between temperature and relative humidity. Some did not use the information in the table in answering this part.

Part (b) tested knowledge of tropical waves. The responses showed a lack of knowledge. Some confused tropical waves with hurricanes. In addition, in Part (b) (ii), candidates failed to identify the elements which they had chosen to describe, and responses were not specific to tropical waves.

In Part (c), many candidates did not know the distinctive characteristics of each type of vegetation. Only about 24 per cent of the candidates gave good answers to this part. Many failed to earn full marks because they did not compare the same properties of the vegetation. They listed various characteristics of each type without cross matching them.

Question 5

The question tested candidates' understanding of urbanisation in the Caribbean – causes, effects and measures to reduce it. It was attempted by about 53 per cent of the candidates but responses were generally weak. Part (a) required candidates to draw a sketch map of a Caribbean country showing areas of settlement of varied population density. Many have not yet mastered the skill of drawing a good sketch map and locating areas on it. Using geometric shapes as a skeleton for drawing an outline would help to develop this skill. Some candidates showed “an area” by a dot. They should have outlined and shaded or labelled a part of the map to show an area of high or low population.

In Part (b) (i), candidates were required to define the term urbanisation. This was poorly done as the majority defined it as a movement from rural areas to urban areas. The response required was that ‘urbanisation is an increase in the proportion of the population living in towns and cities’.

Part (b) (ii) was fairly well done. Many candidates were able to explain that migration caused urbanisation by outlining the push-pull factors but many did not recognise that natural increase also played a role.

The response to Part (b) (iii) was satisfactory. Too many candidates, however, ignored that they were only required to discuss ONE negative effect of urbanisation and listed many negative effects and this resulted in lack of depth in the discussion.

Part (b) (iv) posed some difficulty. The candidates were required to outline measures aimed at controlling urbanisation. Too many responses were vague and failed to outline clearly the measures. In a number of cases, candidates outlined measures in urban areas rather than rural areas.

Acceptable responses included the following specific examples:

- Diversifying agriculture – non-traditional crops
- Providing jobs by building factories in rural areas
- Decentralising development
- The provision of services, for example, hospitals and tertiary institutions in rural areas

Question 6

The question sought to test candidates' knowledge of economic activities – the changes and challenges. Approximately 10 per cent of students attempted the question.

Part (a) of the question was fairly well done. However, the majority of candidates did not label the diagram. Some candidates were unable to use the information in the table to construct a pie chart. A small percentage of candidates drew bar graphs instead of the required pie chart.

In Part (b), candidates tended to misinterpret the question by giving challenges, when they were required to give changes. The changes provided by candidates were not specific to any particular economic activity but were just general.

In Part (c), candidates provided two activities within the same economic sector instead of giving challenges from any TWO economic sectors as required.

Question 7

The question tested candidates' knowledge and understanding of agriculture and its importance to the Caribbean.

It was attempted by approximately 35 per cent of the candidates and 60 per cent of them gave good responses.

Part (a) of the question required candidates to draw a bar graph to illustrate given data. This was fairly well done by some candidates. However, the majority did not earn maximum marks owing to inadequate labelling and inaccuracy in bar construction. Some candidates also constructed line graphs while others proceeded to draw their own graph in the answer script even though an insert was provided for such.

Part (b) (i) tested candidates' knowledge of the definition of the term agriculture. The responses were fairly well done.

Part (b) (ii) was also fairly well done by the majority of the candidates. This part of the question tested the candidates' knowledge of the importance of agriculture to the region. Candidates regularly listed points, but many of them failed to elaborate on the points given to earn maximum marks. Candidates, however, generally had a good understanding of the importance of agriculture in the Caribbean.

Part (c) called for a comparison of peasant farming and commercial arable farming in a named Caribbean territory. Many good responses were given for this part of the question resulting in many candidates gaining at least 70 per cent of the allocated marks. It must be noted, however, that many candidates failed to name a country, for which there was a penalty. Some candidates also referred to Canada and Nigeria rather than to a Caribbean territory.

While many candidates showed an extensive knowledge of the farming systems, many were often not specific enough. For example, candidates used terms such as 'small' and 'big' with no reference to actual farm sizes. Of the three categories, the one requiring candidates to compare, "farming methods" proved most difficult.

Many marks were not earned because candidates did not expand adequately on questions.

Question 8

This question tested the candidates' knowledge of the impact of natural hazards and the precautions taken to reduce their impact. This was a popular question and many candidates were able to give satisfactory answers.

Part (a) (i) was well done. However, candidates experienced difficulties in interpreting the table in (a) (ii) and finding percentages in (a) (iii).

Part (b) was well done although some candidates did not identify a country. The weaker candidates lacked the ability to develop the points which should have centred around physical, social and economic factors. Many even identified the emotional trauma associated with hazards.

In Part (c), although several precautions were identified, many candidates failed to explain how those precautions could be used to reduce the impact.

Question 9

This question tested the candidates' understanding of pollution – types, impact and preventative measures.

Part (a) was well done as candidates were able to identify the country. In Part (a) (i), most candidates were able to calculate the change. Part (a) (ii) was poorly done as candidates appeared not to understand that the question was asking them to state the correlation.

Part (b) was satisfactorily done. However, many of the students confused the term air pollution and global warming. In addition, many candidates failed to describe the causes of river pollution.

In Part (c), most candidates were able to identify plausible measures but failed to fully explain how they have helped to reduce land pollution and emissions of greenhouse gases. Many candidates identified reforestation as a measure to reduce greenhouse emissions. While reforestation may help to regulate the amount of CO₂ in the air, it does not reduce its emissions.

Question 10

This question tested knowledge of the greenhouse effect and the effect of global warming on developed countries and small island developing countries. It was the least popular question in the examination.

In Part (i) of Section (a), candidates had some difficulty in reading the graph and coming up with the correct answer. However, Part (ii) of Section (a) was correctly answered by most.

In Part (b), many candidates were not able to describe accurately the greenhouse effect phenomenon as was required.

In Part (c), some candidates could not correctly identify the greenhouse gases. There were many instances where candidates mentioned carbon monoxide as a greenhouse gas. Candidates were unable to describe how the atmospheric concentration of greenhouse gases was being augmented.

There were some good responses in Part (d). Candidates were able to explain the measures implemented to reduce greenhouse gases in developed countries.

In Part (e), many candidates were able to make accurate comparisons between Caribbean countries, and Mauritius or the Maldives. However, candidates were unable to describe clearly the topography of Mauritius and the Maldives.

Paper 3/1 – (School Based Assessment)

There were two concerns which many projects raised – the nature of the aim of the study and the cooperation of students in writing their reports as a group. The aims were too wide and vague. Some classes did joint field work and the students then submitted reports which were almost identical but for the student's name. From the assessments, it is clear that many teachers condoned these approaches.

Aims will be discussed below. On the issue of common reports, the syllabus clearly states on Page 23, "groups of students may work on the same or different aspects of a general topic taken from any System in the syllabus, but individual reports must be submitted." This can be compared to bands playing the same tune but each band having its own arrangement. Each student should take the raw data from the field and use it to prepare his own report with illustrations.

Table of Contents

The SBA does require Acknowledgement, Introduction and Description of The Study. It requires a Table of Contents. In many cases, page numbers were missing or pages were incorrectly numbered.

Aim of Study

Proper field studies could not be undertaken since some aims were not clear and specific. The aims should be realistic and should be worded so as to allow for the collection of primary data. The scope of study should not be national but, preferably, kept at community level. If students would think of what they want to measure in the field and then make that their stated aim in the form of a question or statement, there would be better projects. Such an aim should produce a set of data collection techniques that will provide useful, valid information.

Location of Study Area

Many maps of the study areas did not show enough detail and they were often untidy and poorly presented. It is advised that candidates present one map of the country showing clearly the location of the study area, and a detailed sketch map of the site. The site maps should highlight features such as roads, rivers and adjacent settlements. These site maps are to show the location and are not to be confused with floor plans of a factory or a “site map” of the buildings or farm. Candidates should be reminded to include scale, key or legend, north point and title. Many candidates copied/downloaded maps without crediting the sources. Marks were awarded only where there was evidence of the candidate’s work added to the map.

Methodology

There were too many cases where enough detail was not given on how the data were collected. The instruments used to collect data, such as questionnaires, tally sheets, interview schedules and worksheets, were not stated in some cases and copies of the same were not placed in the appendix or referenced. Questionnaires and interviews often collected information which was not needed for the aim of the project. Every bit of information should be answering the research question.

Presentation of Data

Ideally, presentation of data and analysis and discussion should not be separated. It was found that photographs were often overused and, at times, not relevant to the studies. Photographs and diagrams should be numbered, titled and labelled. Graphs should be drawn accurately and also labelled and numbered. Candidates who attempted studies of coastal areas did not draw sketches of features seen at the study areas. Candidates are to refrain from including actual samples of soil and other produce.

Quality of Data

Data must always be relevant to the aim and should be comprehensive to achieve the aim of the study.

Analysis and Discussion

In many SBAs, points were merely listed. Discussions were not often well-developed and coherent. Candidates are reminded to avoid relying on secondary data in the discussion of the findings. In many studies, the illustrations used were not integrated in the text. Although illustrations were placed in the studies, some of them were not referred to at any point in the discussion. They were seen as being only decorative.

Conclusion

Many conclusions were inconsistent with the aims of the studies and, at times, were too lengthy. New data should not be introduced in this section. The conclusion should be a summary of the findings and answer the question posed in the Aim. It may include a comment on the suitability of the method used to collect data.

Communication of Information

There were too many grammatical and spelling errors.

Bibliography

This section was poorly done. The authors' names were not in alphabetical order. In many cases, the year of publication was omitted.

PAPER 3/2 -- (Alternative To School Based Assessment)

The paper was manageable but less than a third of the candidates scored over 20 marks. Lack of experience in conducting field work and in presenting a report may account for this. The paper seeks to assess these skills.

Question 1

The candidates were required to draw a sketch map and insert certain features. Some candidates did just that but did not label them or provide a key.

Question 2

The majority of candidates did not understand the question. They were required to frame a research question or hypothesis for a traffic survey.

Question 3 (a), (b) and (c)

The candidates' lack of experience with field projects was evident. The description of the type of information to be collected and how it would be done proved challenging.

Question 4 (a)

Most candidates demonstrated fair knowledge of plotting points for the graph and therefore scored maximum points.

Question 4 (b)

The candidates needed to place more emphasis on interpretation rather than listing the characteristics of the pattern.

Question 5 (a)and (b)

The majority of candidates were unable to draw the pie chart. However, most knew another method to illustrate the data.

Question 5 (c)

The candidates were required to make a comparison and needed to compare the same aspects or components of the data.

Question 6

Most candidates showed poor knowledge of the format required for the bibliography. As a result, they failed to score any marks for this question.

C A R I B B E A N E X A M I N A T I O N S C O U N C I L

**REPORT ON CANDIDATES' WORK IN THE
SECONDARY EDUCATION CERTIFICATE EXAMINATION
MAY/JUNE 2009**

GEOGRAPHY

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GENERAL PROFICIENCY EXAMINATION

MAY/JUNE 2009

GENERAL COMMENTS

This year 13 030 candidates were entered for the CSEC Geography examination. One hundred and ninety-nine were entered for the Alternative to the SBA, Paper 3/2.

In general, too many candidates still display a lack of understanding of basic geographical concepts. This is sometimes reflected in their interpretation of and response to the questions.

In Paper 2, map reading, a critical aspect of Geography, continues to be a challenge to the majority of candidates. Most candidates also have great difficulty in the questions that require descriptions and interpretations.

Responses to questions relating to weather and climate were generally unsatisfactory. Many candidates avoid these questions and those who attempt them often display many deficiencies in their knowledge.

In Papers 03/1 and 03/2 many candidates display an inability to conduct appropriate field research and to write reports on that research. This is especially true of those who write Paper 03/2.

Some other areas of concern include the following:

- Maps and diagrams are often badly drawn, untidy and inaccurate. Conventions for drawing maps and diagrams are often ignored.
- Most candidates cannot produce a moderately accurate drawing of their country.
- Poor language skills.
- Many ignore the instructions given in the questions.
- Lack of adequate and meaningful elaborations of answers. Many can identify, name and list factors, but often do not earn full marks because of lack of appropriate elaboration and explanation.

DETAILED COMMENTS

Paper 01

This paper comprised sixty multiple-choice questions. The performance on the sixty multiple-choice items on Paper 01 produced a mean mark of 36 out of 60, and scores ranged from 0 to 57.

Paper 02

Question 1 (Compulsory)

This question was not well done. Approximately 60 per cent of the candidates scored below 10 marks.

Parts (a), (b), (c) and (d) were well done, with between 80 per cent and 90 per cent of the candidates earning full marks.

However, the following should be noted:

- When measuring distances, candidates should follow the instructions and give answers in the unit requested.
- Some candidates need more help in using the linear scale and the protractor.
- A number of candidates reversed eastings and northings when giving grid references.

Part (e) required candidates to use the key to the map and was generally well done. However, some did not understand the concept of a man-made feature while others seemed not to know how to use the key to a map.

Part (f), requiring candidates to describe a major relief feature in a given grid square, was poorly done. Many candidates did not understand the concept of 'relief feature'. As a result, many described vegetation and roads. Quite a number described everything in the grid square instead of the major relief feature.

A good answer should have mentioned the narrow, steep-sided ridge cut by a saddle. Marks would have been earned for identifying the feature and giving any appropriate elaboration. Elaboration could have included size or height of feature, position, orientation or steepness.

In Part (g) approximately half of the candidates were unable to complete the simple grid correctly. Students need more practice in drawing and interpreting cross-sections.

Part (h) required candidates to describe land use in a given area of the map. While approximately 75 per cent correctly identified at least one land use, too many were only able to give one type. Many were also unable to give adequate descriptions of the land use types they identified.

Part (i) asked candidates to give reasons for the land use pattern identified in Part (h). This was not well done as few gave acceptable reasons. A good answer would have included making a connection between farming, steepness of slope, presence of water, and access to markets.

It is evident that much more emphasis must be placed on the teaching of map reading and developing the relevant skills. It is recommended that mapwork be integrated with the other topics on the syllabus and that it be done consistently.

Question 2

This question tested knowledge of Objectives 3, 4 and 5 of the Natural Systems section of the syllabus. While it was the most popular question in this section, the answers were only moderate in their accuracy.

Generally, responses to Part (a) were satisfactory. Weaker candidates were unable to draw and label the main features of a subduction zone.

In Part (b) (i), many candidates did not adequately distinguish between intrusive and extrusive volcanic features. While many were able to identify one intrusive feature, too many were unable to name an extrusive feature. In Part (b) (ii) many were unable to describe how intrusive landforms could influence the landscape over time.

Part (c) (i) was generally well done and many were able to explain how earthquakes develop at transform plate margins. Parts (c) (ii) and Part (c) (iii) were not well done, as many candidates were unable to account for the formation of fold mountains where continental plates collide, and could not explain how lava plateaux are formed. Many suggested that a lava plateau was formed by 'expansion' and erosion of intrusive features.

Question 3

Approximately 28 per cent of all candidates attempted this question. The answers were generally satisfactory.

In Part (a), most candidates were able to score at least 75 per cent of the marks available. It was clear, however, that not much attention was given to proper drawing and labelling of the diagram.

Part (b) (i) required candidates to outline the sequence of processes which occur in the water cycle. Most were familiar with the information needed to answer the question, but many failed to gain full marks because of incorrect sequencing of the processes in the cycle. Better candidates used diagrams effectively to help in their answers.

In Part (b) (ii), most candidates were able to identify the characteristics of limestone that made it susceptible to chemical weathering (chemical composition and permeability) but many did not adequately elaborate.

For Part (c) (i), many candidates demonstrated knowledge of some facts relating to the formation of limestone pillars but some did not know the sequence of steps in the process. Some confused pillars with sea stacks.

Parts (c) (ii) and (iii) asked candidates to explain how swallow holes and limestone caves were formed respectively. While some demonstrated some knowledge of the features, many confused them with coastal features (sea caves and blow holes).

Question 4

This question tested knowledge and understanding of aspects of weather, climate and vegetation.

Of the small percentage of students who attempted it, about 30 per cent gave satisfactory responses.

Responses to Part (a) were generally satisfactory. Most interpreted the graph correctly and gave appropriate responses.

The response to Part (b) (i) was generally fair. However, many gave characteristics of Tropical Continental climates rather than Equatorial. Many responses were also vague and thus did not earn full marks. It is not sufficient to state that the temperature is 'high'. Greater elaboration/description is required.

In Part (ii) many confused the characteristics of the vegetation of Tropical Continental regions with that of Equatorial regions.

Part (c) was not very well done. Many candidates confused convectional rainfall with relief rainfall in Part (i) and some wrote about the ITCZ and frontal rainfall. Too many were unfamiliar with the correct concepts to give adequate responses to Parts (ii) and (iii). Surprisingly many even interpreted 'windward' and 'leeward' side incorrectly.

Question 5

This question tested candidates' ability to interpret a population pyramid and to display their knowledge of population distribution, density and growth of capital cities in the Caribbean. It was a popular question but the answers were barely adequate.

Part (a) was generally well done.

Part (b) (i) was poorly done because many candidates were unable to define population density and distribution.

Many candidates did not earn full marks in Part (b) (ii) because they were unable to state sufficient consequences of migration on the Caribbean region.

Part (c) (i) was fairly well done. The question required an explanation of how relief may lead to low population densities. However, many candidates interpreted relief to be relief rainfall while most only discussed highland areas.

While Part (c) (ii) was generally well done, some candidates did not adequately explain how the given factors influence population distribution.

Part (d) was fairly well done. It should be noted that while most candidates recognized that migration contributed to population growth in cities, only a few noted the importance of natural increase.

Question 6

The following areas were tested in this question: economic activities in the Caribbean, strategies for encouraging visitor arrivals (except sun, sea and sand), reasons for development of tertiary activities in the region and the role of CSME in addressing some of the challenges to development in the Caribbean. Many of the responses were weak.

Most candidates were able to calculate the angles in Part (a) (i) and complete the pie chart in Part (a) (ii).

Responses to Part (b) (i) were satisfactory, as most had a good understanding of primary and tertiary industries. In Part (b) (ii), many candidates were unable to identify ways in which visitor arrivals could be encouraged other than the promotion of culture. Expected answers included: development of ecotourism, health tourism, heritage tourism, promotion of festivals and special events, promotions in non-traditional markets and developing cruise tourism.

Part (c) (i) was poorly done, as many seemed to see tourism as the only tertiary activity. In Part (c) (ii) it was clear that many more candidates were familiar with the garment industry than with the food industry. Part (c) (iii) was poorly done as many candidates seemed to be unfamiliar with the role of the CSME.

Question 7

Most of the responses to this question on agriculture were inadequate.

Part (a) required candidates to read information from a table and was well done.

Part (b) (i) was generally well done also, as most were able to state ways in which agriculture was important to the region.

Many were unable to identify significant characteristics of large-scale commercial arable farming in the Caribbean and thus Part (b) (ii) was not well done.

Part (c) called for an account of the similarities and differences between large-scale commercial arable farming in the Caribbean and that of the Canadian Prairies using the headings 'growing season' and 'marketing'. This was poorly done and in many cases there was no answer at all. Many answers were inadequate because candidates demonstrated a lack of understanding of the concepts 'growing season' and 'marketing'.

Question 8

This question tested the following objectives: Section 1- 2.1, and Section 4 – 1, 2 and 3.

In Part (a) of the question, most candidates earned at least half of the available marks. Most were able to identify a number of the changes shown in the photographs.

Part (b) (i) presented some difficulty, as many candidates were unable to adequately define the term 'natural hazard'. In Part (b) (ii), although candidates were able to identify the impact of the hazard, they did not elaborate on their points and link them to economic development.

In Part (c), candidates gave a variety of responses, many of which did not focus on a household disaster plan. Weaker candidates simply gave a list of foodstuffs to be bought. However, the better candidates focused on those actions that should be taken to ensure members of the household experience the least stress during this event and they gave reasons. Their list of items included determining escape routes, locating the nearest shelter, obtaining insurance, stocking non-perishable foods, water, medication, battery operated radios and flashlights.

Question 9

This question tested Section 1 - 3.4, and Section 4 – 4, 8 and 9.

Part (a) required the drawing of a map of a Caribbean country selected by the candidate to show an area where marine pollution was a problem and the source of that pollution. While a few produced excellent maps which observed the conventions related to drawing maps, most produced poorly drawn, untidy and unlabelled maps. Many could not draw maps of their own country. In some cases candidates drew parts of the country rather than the entire country.

Part (b) was fairly well done although some candidates needed to give more attention to defining what was required as opposed to things that are related or merely giving examples.

Part (c) was fairly well done.

Question 10

This question tested Section 1 – 3.3 and Section 4 – 5, 7 and 10.

It was a very unpopular question, and was attempted by only approximately 10% of the candidates writing the examination.

While Part (a) was generally fairly well done, many had difficulty calculating time where the International Date Line was involved.

Parts (b) and Part (c) were fairly well done.

In Parts (d) and Part (e) many candidates were able to identify measures to reduce deforestation and coral reef destruction. However, weaker candidates were unable to or did not elaborate and explain fully.

Paper 3/1 – (School Based Assessment)

The overall performance of candidates was fair. However there were weaknesses in the following areas:

- Aims of the studies
- Presentation of maps
- Conclusion
- Bibliography

Table of Contents

Many candidates did not number the pages in the text as indicated in the Table of Contents.

Aim of Study

In too many cases the aims of the study were not clearly stated. In addition they were often not specific enough or did not allow for field work. In some instances the data collected did not bear much relationship to the aims of the study. Many aims were not 'geographical'.

The following is an example of a good aim seen this year:

- To identify, describe and account for the features of erosion and deposition along the coastline from Alleyne Bay to Batts Rock Bay.

Examples of poorly written aims included the following:

- What are the effects of global warming on (name of city)?
- To find out if there has been an increase or decrease of dengue fever cases in (name of town).
- To examine the effects of tourism on (name of country).

Location of Study Area

Most candidates presented good maps of the territory/country showing the study area. However, the maps of the site were often presented on the same scale as the territorial map and did not show details of the area. Some were presented as larger scale maps of the territory/country or district, without showing details of the study area.

Where computer generated maps are used, these should be manipulated to remove unnecessary detail and to clearly include/highlight the study area and other salient features. They **MUST** also include all the elements of a good map. Photocopied maps are not acceptable.

Methodology

Most candidates performed creditably in this area. However, there were too many instances where questionnaires were used even though they were not appropriate for the particular studies.

Presentation of Data

Illustrations should be integrated into the discussion/account. They should be neat, titled and numbered and references should be made to them where appropriate in the discussion. Maps, apart from those used to show location, may also be used as illustrations.

Quality of Data

This is not a section for candidates to include in their studies (i.e. there should not be a sub-heading in the reports called 'quality of data'). Candidates are marked on the quality of the data as it relates to achieving the aims of the study. The data should be relevant and sufficient for the achievement of the aims of the study. There should not be an over-dependence on the use of secondary data.

Analysis and Discussion

There were some good studies that were well developed and coherent. These used primary data that were appropriately illustrated and integrated in the discussion of the findings. In too many cases candidates merely wrote theoretical accounts based on textbook descriptions/explanations, with no reference to the phenomena studied in the field. There must be clear evidence that fieldwork has been done.

Conclusion

This should be a summary of the findings discussed in the presentation and analysis. It should be related to the aims of the study and new data should not be used in this section.

Communication of Information

While some improvement was seen in the quality of language and in the use of relevant geographical terms, there were still too many instances of poor grammar, spelling and expression.

Bibliography

Many candidates scored no marks on this section. Candidates should follow the conventions for writing a bibliography. Special attention should be given to the convention for listing of internet sources.

PAPER 3/2 -- (Alternative to School Based Assessment)

Question 1

This question tested candidates' ability to transfer a part of a map to a given grid. A 1:25,000 map of part of Trinidad was used and the grid was drawn at a scale of 1:50,000. Most experienced difficulty in locating/inserting the features accurately on the grid. In addition, many were unable to insert the 500 ft contour line and label land over 500 ft. A large number of candidates did not use a key.

Question 2

Question 2 tested candidates' ability to frame a research question or hypothesis. The responses were poor, as most were unable to write a suitable research question. For the scenario given, a suitable answer might have been that "discharge of a stream increases evenly downstream." This could also have been rephrased as a question.

Question 3

Part (a) which tested candidates' knowledge of stream discharge, was poorly done. While some were able to identify one feature related to stream discharge, most were unable to identify three as required. Possible answers would have included the following: width of channel, depth, shape, and velocity.

In Part (b), most candidates' could not explain how they would collect data. Often the methodology proposed was inappropriate. The majority of those who were able to identify suitable methods were unable to describe them adequately.

In Part (c), only a few candidates' were able to identify a problem that may be encountered in conducting the research. In many cases those who identified a problem could not explain how it could be overcome.

Question 4

Part (a) of this question required candidates to draw the shape of a stream channel using data and a grid provided. While some were able to accurately plot the points along the section, most inverted the channel shape. Labeling was mostly either non-existent or inadequate. Many ignored the instruction regarding the scale to be used.

Part (b) was not well done. Most candidates could not describe the characteristics of the channel using the information given in a table.

The majority of candidates could not calculate the cross-sectional area of the channel as required for Part (c). Many candidates attempted to calculate the gradient instead.

Question 5

Part (a) of this question required the drawing of a bar graph to illustrate given data. This part was fairly well done and most candidates labelled the axes correctly. Some ignored the instruction to use a given scale.

Most were able to identify the pie chart as another method by which the data could be illustrated and thus Part (b) was generally well done.

Part (c) required candidates to summarise and comment on data on changes in land use given in a table. Generally they were able to list the changes but some were unable to make adequate comments.

Question 6

The ability to write up a bibliography in an accepted format was tested in Question 6. Most candidates were unable to do this correctly. In many instances candidates wrote sentences or short paragraphs. Most did not follow the conventions for writing a bibliography.

CARIBBEAN EXAMINATIONS COUNCIL

**REPORT ON CANDIDATES' WORK IN THE
SECONDARY EDUCATION CERTIFICATE EXAMINATION**

MAY/JUNE 2010

**GEOGRAPHY
GENERAL PROFICIENCY**

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GENERAL COMMENTS

This year 13,546 candidates were entered for the CSEC Geography examination. For the Alternative to the School-Based Assessment (SBA) (Paper 03/2), 290 candidates were entered. The most popular questions were 2 and 5 and the least popular were 4, 6 and 7.

Map reading, the compulsory question and a critical aspect of Geography, continues to be unsatisfactory. Most candidates were able to earn some of the Profile marks but had great difficulty with questions that required descriptions and interpretations.

Responses to questions relating to weather, climate, vegetation, rivers and drainage patterns, volcanoes and plate tectonics were generally unsatisfactory. Many candidates avoided these questions and of those who attempted them a large number displayed many deficiencies in their knowledge.

In general, too many candidates still display a lack of understanding of basic geographical concepts. This is sometimes reflected in their interpretation and response to questions. In Papers 03/1 and 03/2, many candidates displayed an inability to conduct appropriate field research and to write reports on that research. This was especially true of those who wrote Paper 03/2.

Some other areas of concern include the following:

- Maps and diagrams were often badly drawn, untidy and inaccurate. Conventions for drawing maps and diagrams were often ignored.
- Poor language skills.
- Many candidates ignored the instructions given in the questions.
- Lack of adequate and meaningful elaboration of answers. Many candidates could identify, name and list factors, phenomena but often did not earn full marks because of a lack of appropriate elaboration and explanation.

DETAILED COMMENTS

Paper 01 – Multiple Choice

This paper comprised 60 multiple-choice questions. Performance on Paper 01 produced a mean mark of 353 out of 60, and scores ranged from 7 to 59.

Paper 02 – Essay Questions

Section A – Map work

Question 1

In this question, over 50 per cent of candidates obtained scores between 12 and 17 marks, out of a possible 28 marks.

Part (a) was well done with over 90 per cent of candidates giving the correct grid reference. Common errors made included the following:

- Placing northings before eastings
- Inserting commas, decimal points and letters between the easting and northing
- Giving a four figure reference instead of a six-figure grid reference

In Part (b), candidates were tested on their ability to give a compass direction, over 90 per cent of them were able to give the correct answer. While Part (c) was generally quite well done, a few candidates gave compass directions instead of the bearing.

Part (d), which required candidates to measure a distance on the map, was well done. Some candidates used the wrong unit of measurement while a few had difficulty interpreting the instruction to give the answer ‘to the nearest 100 meters’.

Part (e) required candidates to calculate a gradient. Many candidates did not attempt this question and most of those who attempted it did not know or understand the formula. Many candidates lost marks as they failed to express their answer as a ratio. Additionally, approximately ten per cent of candidates did not show calculations and so could not earn full marks.

The expected answer was:

$$\begin{aligned} \text{gradient} &= \frac{\text{difference in height}}{\text{horizontal distance}} \quad \text{OR} \quad \frac{\text{rise}}{\text{run}} \\ &= \frac{1350 - 0 \text{ ft}}{1815 \text{ ft}} &= \frac{1350^1}{1815_{1.34}} &= \frac{1}{1.34} \\ &= 1:1.3 \end{aligned}$$

Part (f), which required candidates to list four services provided in the village of Berekua, was well done. The vast majority of candidates was able to identify the services.

In Part (g), candidates were required to describe the drainage in a specified area of the map. A large number of candidates failed to use map evidence in their descriptions and merely gave textbook definitions of drainage features. Many candidates confined their answers to drainage patterns only and made no mention of other aspects of drainage such as direction of the flow of rivers, how well drained the area is, source etc.

For Part (h), most candidates were unable to describe the site of the town of Pointe Michel. Many of them gave lengthy descriptions of the town without focusing on the site. Many wrote about roads, settlement patterns and services. A good answer should have included mention of the fact that *the town is built on gently sloping land along the coast, that it is bordered to the north and south by steep sided upland areas and that most of the town lies between two river valleys.*

Part (i) was poorly done. Many candidates gave descriptions of the natural vegetation instead of agriculture as required by the question.

It is recommended that much more time be spent on the teaching of map reading and developing the relevant skills in map reading should be integrated with the other topics on the syllabus.

Section B – Natural Systems

Question 2

This question tested knowledge of Objectives 1, 2, 4, 11 and 13 of the Natural Systems section of the syllabus. Generally, responses to Part (a) were satisfactory with most candidates scoring three out of a possible four marks. Weaker candidates did not follow the instructions and were unable to see the relationship between the distribution of volcanoes and plate boundaries.

In Part (b) (i), the diagram required to illustrate a trellis drainage pattern was poorly done. Many candidates also did not support the diagram with a written description or annotation. Some of the more common mistakes included the following: confusing trellis with dendritic, referring to distributaries instead of tributaries, and claiming that the direction of flow of the tributaries was from the main river. Many candidates did not mention the influence of the geology of the area.

The description of the ways in which rivers transport their load required for Part (b) (ii) was generally well done. However, some candidates wrote about erosional processes while some wrote about wave processes.

In Part (c) (i) which required candidates to explain how volcanoes are formed at convergent plate boundaries, many candidates mixed up continental and oceanic plates and did not know which plate would sink. Part (c) (ii) also revealed many misunderstandings with regard to the formation of fold mountains at plate boundaries. Many candidates were also unable to give correct examples.

Question 3

This question tested Objectives 9, 11, and 12 in the Natural Systems section of the syllabus. Part (a) was generally well done and most candidates scored three or more marks out of four. Part (b) required candidates to describe four processes of coastal erosion. Many candidates wrote about river erosion or could not give adequate descriptions.

In Part (c) (i), candidates were asked to explain how bay-head beaches form. Many candidates knew how bays were formed but did not address the question of bay-head beaches.

In Part (c) (ii), the explanations for the formation of river cliffs and slip-off slopes were often vague and incorrect. River cliffs were often confused with sea cliffs and waterfalls, while slip-off slopes were confused with beaches or levees.

Question 4

This question tested knowledge and understanding of aspects of weather, climate and vegetation. It was generally poorly done with an average mark of less than 8 out of a total of 24. Part (a) required the drawing of a cross section of a hurricane. Many candidates did not know how to draw a cross section and drew the symbol for the eye of the hurricane or isobars. Part (b) required a description of the layers in a tropical rainforest. This part was poorly done as many candidates could not adequately describe the vegetation in each layer or mixed up the layers.

Part (c), requiring candidates to explain how a rain shadow area developed, was fairly well done. However, some candidates had no idea of the meaning of the term 'rain shadow'. Some drew diagrams of clouds blocking the sun or buildings covered by clouds. Responses to Part (d) were generally poor. Most candidates could not explain why temperature on the summit of a mountain is lower than temperature in the lowlands.

Section C – Human Systems

Question 5

This question tested Objectives 2, 5 and 6 in the Human Systems section of the syllabus. It was extremely popular, based on the frequency of responses. Candidates generally performed fairly well and showed a basic knowledge of the concepts tested.

Part (a) was generally well done except for Part (a) (iii) which involved the calculation of population growth. This was not attempted by a large number of candidates and when it was attempted there were clear computational errors.

Part (b) was fairly well done. However, some candidates confused problems of urbanization with reasons for migration and some mixed up rural with urban. Some did not explain concepts fully, especially the concept of over population.

For Part (c) candidates displayed limited knowledge of the factors influencing population growth and gave limited or incorrect responses. In Part (d), candidates seemed to have a good grasp of the causes of urbanization but the points raised were often not well developed.

Question 6

This question tested Objective 4.2 in section one of the syllabus and 9, 11, 13, and 14 in the Human Systems section. Many of the responses were weak.

Part (a) was generally well done and most candidates were able to score at least 3 out of 4 marks. In Part (b) (i), candidates often gave examples of types of economic activities in the Caribbean but did not link the example to the type of activity.

Responses to Part (b) (ii) were often inadequate because many candidates did not properly elaborate on the factors which influenced the location of the chosen activity. In Part (b) (iii), many candidates were able to identify challenges to the chosen economic activity but did not adequately elaborate on these challenges.

Part (c) was poorly done as many candidates did not satisfactorily compare the given factors for the two countries. The influence of raw material was not addressed appropriately by the majority of candidates. In many instances, candidates focused on only one country.

Question 7

Few candidates attempted this question which examined the farming systems in the Caribbean and the Prairies of Canada. The average mark achieved was approximately 11.

Part (a) was not well answered with many candidates not being able to interpret the data from the table. In Part (b), candidates were able to identify characteristics of peasant farming, however, the weaker candidates were unable to develop their points.

Part (c) asked candidates to explain the changing role of commercial arable farming. There was limited development with regard to the named country and many answers were very general, showing a lack of knowledge and understanding of current trends.

In Part (d), where candidates were asked to explain the differences between farming in the Caribbean and the Prairies of Canada, there was little attempt to develop a comparison. Many candidates showed a lack of knowledge about farming in the Prairies.

Section D – Human: Environment Systems

Question 8

This question examined responses to hazards at various levels (individual or the community, national and regional). It was a popular question and the average mark was approximately 12 out of 24.

Part (a) was well done. Only a minority of candidates failed to recognize the hazard shown as an earthquake. Part (b) was also well done. Candidates displayed a good knowledge of hazards that affect the Caribbean and how individuals and communities respond to these. A few candidates wrote about national responses rather than individual or community responses.

In Part (c) (ii), many candidates failed to give responses at the national level. For Part (c) (ii), many candidates wrote generally about responses and often confused 'regional' with 'national' and sometimes 'international' responses. There was some evidence of knowledge of regional organizations such as Caribbean Disaster Emergency Management Agency and the University of the West Indies Seismic Research Unit.

Question 9

This question tested Objectives 4.1 and 4.2 in section one of the syllabus and 4, 5, 7 and 9 of the Human - Environment Systems section.

Part (a) (i) and (ii) were well done but in Part (iii) many candidates had difficulty in accurately completing the bar graph. Part (b) (i) was well done as most candidates were familiar with the terms 'air' and 'land pollution'. Part (b) (ii) was poorly done. Many candidates did not clearly describe the measures taken by Caribbean countries to reduce the emission of aerosols. In Part (c), there were many good responses. Candidates were generally able to explain how deforestation affected the environment.

Question 10

This question tested Objective 9 in the Human - Environment Systems section of the syllabus. It was not a very popular question and the average mark earned was approximately 15 out of 24.

In Part (a), many candidates did not fully shade the areas of both islands that would have been flooded. For Part (b), many candidates confused global warming with ozone depletion and in several instances the ozone hole was given as the cause of global warming.

Candidates performed well on Part (c) which required them to explain how coral reefs in the Caribbean are destroyed. The weaker candidates, however, were only able to list the causes.

PAPER 03/1 – School-Based Assessment

Generally, topics chosen were related to the syllabus. Some teachers were too lenient and gave marks for maps which were not properly drawn. In most cases, studies were within the word limit. Studies should be presented with the required documents such as strategy sheets and individual mark sheets for each candidate.

Table of Contents

In some cases, pages were either incorrectly numbered or not numbered at all. This section could have been better presented.

Aim of Study

Some aims were not clearly stated and students need to be guided in choosing aims that are directly related to the syllabus. Aims should be geographical and should allow for collection of data in the field by the students. Proper field studies cannot be executed if aims are weak.

Location of Study

In some cases, study areas were not identified and named on the territorial maps. The necessary elements such as the title, key and scale were absent from some of the maps and many were not drawn to scale. Site maps were not accurately drawn. In some cases, they were not labelled and the study area was not highlighted in relation to surrounding important man-made and natural features. Maps should be drawn preferably using black ink. Computer-generated maps should not have unnecessary details and should be manipulated to make them suitable for the particular study being done.

Methodology

This section was satisfactorily done, but some candidates did not describe how the data was collected. Candidates should note that not all studies require the use of questionnaires and if they are used, they should be presented in the SBA.

Some candidates did not write the name of the study site and the territory to show where the study was done.

Presentation of Data

Many illustrations were not properly presented. Illustrations should be thoroughly labelled and have suitable titles. Some illustrations and graphs were not suitable for the data being presented and lacked accuracy. Illustrations, photographs and graphs should be integrated within the analysis and discussion.

Quality of Data

Data collected was often not adequate enough to achieve the aims of the study. Some candidates presented only secondary data. Some of the studies were not comprehensive enough to achieve the aims.

Analysis and Discussion

Very often, the analysis did not relate to the aims. Some points were not well developed, sequenced or supported by comprehensive primary data. Illustrations were often not fully integrated in the discussions.

Conclusion

Some conclusions did not relate to the aims and methodology and did not provide an appropriate summary of the findings discussed in the analysis. In some cases, new information was added.

Communication of Information

Candidates extensively used geographical terms associated with the study. There were, however, too many instances of grammatical and spelling errors and poor sentence construction.

Bibliography

Candidates were expected to write correctly at least one textbook used for the study. These should be in alphabetical order by surname and not presented in a listing format under headings such as textbook, atlas and website. It is recommended that an acceptable style such as the APA be used.

PAPER 03/2 – Alternative to School-Based Assessment

Question 1

This question tested candidates' ability to transfer a part of a map to a given grid. While some good responses were given, many candidates were unable to accurately locate and insert the features.

Question 2

Question 2 tested candidates' ability to frame a research question or hypothesis on farming practices. The responses were poor as some candidates were unable to formulate a clear and suitable research question or hypothesis. For the scenario given, a suitable answer might have been that "*farming practices have changed over the last five years because of new international marketing arrangements.*" This could also have been rephrased as a question.

Question 3

Part (a) required candidates to list six items (excluding the size and position of the estate) on which they would collect information about farming practices. This was generally poorly done. Items which could have been included in the list include: *type of labour (full or part time, family or outside, machinery, crops (acreage, yield, main markets)), land use pattern, reasons for land use pattern, fertilizers, pesticides and herbicides used, farming year/harvest times, costs and subsidies.*

In Part (b), most candidates were able to say when they would collect the data but could not describe how it would be collected. Often, the methodology proposed was inappropriate. Suitable answers could have included the following: *contact owner/manager to schedule a visit at his/her convenience, preparation of a large-scale base map for use in the field, interview the owner/manager (preparation of interview schedule), tour the estate to observe and record farming practices etc.*

Part (c) required candidates to identify one problem (excluding weather, illness and injury, they may encounter in conducting the research and to state how they would overcome that problem. Only a few candidates were able to identify a problem and in many cases those who identified a problem could not explain how it could be overcome.

Question 4

Part (a) required candidates to draw the cross section of a stream channel using data in a table and a grid provided. This was fairly well done as many candidates were able to accurately plot the points and draw the cross section.

Part (b) was not well done. A large number of candidates failed to suggest reasons for the differences in the shape of the channel shown by the measurements given.

Question 5

Part (a) (i) required the calculation of the average velocity of a stream from data given in a table. Most candidates were unable to calculate the average velocity. Part (a) (ii) asked for reasons for differences in velocity with depth. There were also many incorrect responses to this part.

In Part (b), candidates were required to draw a line graph to illustrate data in a given table showing stream velocity with depth. While there were some good responses to this question, a number of candidates ignored the instructions and drew bar graphs instead.

Question 6

The ability to write up a bibliography in an accepted format was tested in Question 6. Most candidates were unable to do this correctly. In many instances, candidates wrote sentences or short paragraphs. Most did not follow the conventions for writing a bibliography.

CARIBBEAN EXAMINATIONS COUNCIL

**REPORT ON CANDIDATES' WORK IN THE
SECONDARY EDUCATION CERTIFICATE EXAMINATION**

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GENERAL PROFICIENCY EXAMINATIONS**

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GENERAL COMMENTS

In 2011, 12,689 candidates wrote the examinations. Of this number, approximately 66 per cent obtained Grades I–III. This performance is consistent with that of 2010.

Overall, there was some improvement in performance on Paper 02, but on the compulsory Map Reading question performance continues to be unsatisfactory. Many candidates were unable to shade climatic areas on the World Map or to name selected islands of the West Indies as identified on a map.

Many candidates continue to display a lack of understanding of basic geographical concepts . This is sometimes reflected in their interpretation and response to questions. Performance on the School-Based Assessment (SBA) also continues to be unsatisfactory while that on Paper 032 (the Alternative to the SBA) showed some improvement. Preparation of sketch maps and the formulation of research questions, on this paper, is still weak.

DETAILED COMMENTS

Paper 01 – Multiple Choice

Paper 01 comprised 60 multiple-choice questions. The mean on this paper was 59 out of 60 or 61 per cent. This represents an increase over the performance 2010 when the mean was 54 out of 60 or 59 per cent.

Paper 02 – Essay Questions

Section A – Map Work

Question 1

Part (a) was adequately handled by most candidates. Common errors include the following:

- placing northings before eastings
- inserting commas, decimal points and letters between the eastings and northings
- giving a four figure grid reference instead of a six figure

In Part (b), candidates were required to measure distance on the map; approximately 50 per cent of candidates obtained full marks, while 25 per cent had problems giving answers to the nearest 100m, for example 6.8km or 6800m was rounded off to 7km/7000m. Too many candidates incorrectly expressed distances in metres for example, 6.8m instead of kilometres. This indicates a problem that can be solved by practice in estimating distances between points in the local environment.

For Part (c), candidates were tested on their ability to measure bearing. This section was well done. Most candidates gave the correct bearing. However, many candidates wrote the compass direction instead of the bearing and several candidates gave bearing and direction. More practice is needed in the use of the protractor.

Part (d) (i), required candidates to identify types of vegetation depicted on the map. This was very well done with about 90 per cent of the responses being correct. A small percentage of candidates confused the word vegetable with vegetation and so named crops such as dasheen, bora, lettuce and gave cultivated areas as examples of vegetation.

In Part (d) (ii), most candidates were able to name the services depicted on the map extract. Common errors included, petrol station and post office instead of police station. Few candidates gave general responses such as social services.

For Part (e), candidates were required to label features on a cross section. Most candidates gave incorrect responses. Many of them interpreted the cross section as the long profile of a river, giving responses such as upper course and lower course while others listed types of vegetation. It was obvious that many candidates do not understand the concept of a cross section and could not relate the profile to northing 29.

Part (f) required candidates to identify drainage features. This section was poorly done, with a small fraction of the candidates giving correct responses. Most candidates merely listed features from the key such as waterfall, dam and waterhole. Many confused the term drainage features with drainage pattern and wrote trills, dendrite and radial drainage. Candidates were expected to examine the map and identify the many rivers (high density) flowing mainly to the east. Reference to stream meandering, swamp and ponds also earned marks.

In Part (g), candidates were given a part of a map shown the 20m contour line and asked to shade land over 20m above sea level. Of great concern is the fact that almost half of the candidates shaded the area below 20m while most were unable to recognize and correctly label landforms such as spur, valley and plain.

For Part (h), candidates' responses showed little understanding of the concept of the relationship between cultivation and settlement, drainage and relief. A large number of candidates answered this section incorrectly. Most candidates gave general descriptions about why persons settle in an area or why water is needed for cultivation with absolutely no reference to the map extract. Some candidates completely misread the question and related drainage and relief to settlement.

Section B – Natural Systems

Question 2

This question required candidates to demonstrate knowledge of volcanic features — how they are formed the changes they may undergo over time — and to account for the nature of volcanic eruptions at different plate boundaries. The responses showed that the demands of the question were not clearly understood by candidates. This was the first of three optional questions in Section B and was the most popular among candidates. Approximately 54 per cent of candidates attempted this question. Of this amount, approximately 26 per cent gave acceptable responses.

For Part (a), the diagrams of a composite cone were poorly drawn and labelled. Candidates failed to distinguish between the layers of ash and lava. In labeling, a number of candidates confused the vent with the pipe. Also, the parasitic cone/secondary cone was referred to mostly as the side vent. Many candidates included the magma chamber in their diagram and a number of them wrote an extensive discussion, rather than drawing and labelling as was required by the question.

The responses to Part (b) (i), were satisfactory. In some cases features were incorrectly referred to as 'substances, particles, activities, components, elements, materials and things' in the definition of intrusive and extrusive features. The terms magma and lava were used interchangeably to answer this Part of the question. Candidates need to recognize that lava is produced from magma.

Many candidates did not attempt Part (b) (ii). The changes which extrusive features may undergo overtime were poorly described. The effects of the processes of weathering and erosion, along with the stages in the development of a volcano, are the responses which were expected.

Part (c) (i), was fairly well done. While many candidates accurately referred to the plates sliding past each other and the build-up of pressure, friction, and tension, too few candidates explained that the release of pressure resulted in earthquakes.

Part (c) (ii) asked candidates to account for the nature of the eruption and the shape of volcanoes at convergent and divergent plate boundaries. Most candidates demonstrated an understanding of the concept of convergent and divergent plate boundaries but failed to apply the knowledge to adequately answer the question. Candidates often failed to account for volcanoes at convergent boundaries being composite/ash and cinder cones and having violent/explosive eruptions, acidic lava and steep slopes. Many candidates identified that the plates at the divergent plate boundary moved away from each other but often failed to account for volcanoes at the boundary as being shield volcanoes and having non-violent eruptions, basic lava and gentle slopes.

In many cases, candidates placed focus on the process of subduction and overlooked the required discussion on the nature of the eruptions and the shape of the volcanoes at the two boundaries.

Question 2 was straightforward with no ambiguity but candidates still did not perform at a high level. Too many candidates failed to use geographical terms in their discussions.

Teachers need to ensure that their students read and understand what questions ask of them and use the correct geographical language in their response.

Question 3

This question tested candidates' knowledge of the water cycle, limestone features, drainage patterns and coral erosion. Approximately 30 per cent of candidates attempted this question, but only about 10 per cent of them obtained acceptable grades.

Part (a) was generally well done as most candidates were able to score 75 per cent (3 out of 4) of the marks. Attention must be given to the spelling of technical terms and the presentation of diagrams.

For Part (b) (i), many candidates could only identify one significant feature of each of the drainage patterns and several candidates interpreted the drainage to be man-made rather than natural. Some candidates were not familiar with the topic.

Very few candidates scored more than 50 per cent (2 out of 4) of the marks for Part (c) (i). Candidates failed to recognize limestone related features and so were vague in their definitions.

Part (c) (ii) was poorly done. Candidates recognized cockpit as a limestone feature but failed to realize that it was caused by weathering. Some candidates actually described cockpit as being formed underwater.

Part (d) was moderately well done. At least 50 per cent of the candidates confused the erosion feature caused by wave action with either depositional features (beaches) or the creation of stacks, arches and cliffs.

Question 4

This question tested candidates' knowledge and understanding of aspects of weather and climate based on Objectives 17, 18, 20 and 22 of the syllabus. This question was the least popular in this section. In general, the question was poorly done. About 80 per cent of the candidates who did this question scored less than 10 out of 24 marks.

Part (a) required candidates to shade three tropical climatic zones on a map of the world which was provided.

The majority of candidates did not shade the actual areas; rather they shaded whole continents and even ocean. Very few of the candidates were able to correctly name one place in any one of the three zones. Some candidates named the place in their answer booklet rather than on the map.

For Part (b), candidates were required to describe the characteristics of temperature and rainfall for two types of climate. This was the area where most candidates were able to earn a few marks but many candidates were unable to adequately describe the temperature and rainfall characteristics. Instead of giving rainfall and temperature amounts in numbers, candidates used terms such as 'hot', 'a lot of', 'high' and 'large amounts'. In general, the responses were vague. Of great concern is the fact that some candidates described tropical climates as having cold winters.

Part (c), required that candidates give two reasons data for 30 years were used to determine climate. It seems that most candidates did not understand the question as they gave the definition of weather and climate instead of providing reasons. Very few candidates earned full marks for this section.

Candidates were also required to explain how mountains affected rainfall and temperature. The responses were poor. Many candidates gave a combined explanation instead of treating the two elements separately. Only a few candidates related the rainfall discussion to relief rainfall and many also linked their answers to vegetation and trees keeping the place cool by lowering temperature. Most candidates could not explain why temperature on the summit of a mountain was lower than the temperature of the surrounding lowland.

Many candidates only attempted Part (a), which referred to the world; many did not respond to Parts (b) and (c).

The candidates who scored satisfactorily on this question displayed an ability to shade the climatic zones, describe the characteristics of two types of climate and explain how mountains affect rainfall.

More attention needs to be given to this aspect of the syllabus.

Section C – Human Systems

Question 5

This question tested patterns of migration (rural to urban as well as international migration), population change and density. It was attempted by approximately 48 per cent of the candidates and was fairly well done by just over 60 per cent of them.

Part (a) (i) was not well done. Candidates did not make adequate use of the stimulus material provided and appeared not to understand what was required.

For Part (a) (ii), many candidates were unable to identify the two CARICOM countries which were identified on the stimulus material.

In Part (b), most candidates appeared to have grasped the concepts of natural increase and migration; however, some of them were unable to give clear definitions.

Part (c) was generally well done and most candidates were able to score heavily on this question. However, it must be noted that the majority of candidates gave reasons for migrating instead of describing the pattern of migration. A few candidates failed to identify a country.

Part (d) was also well done as candidates' responses showed that they clearly understood the concept of rural to urban migration. Factors were clearly identified but some candidates failed to elaborate on or adequately develop the points to score full marks.

Part (e) was poorly done; as many candidates seemed to have confused population growth with population density and gave long responses on factors influencing population growth in cities.

Some candidates were able to adequately identify points that accounted for high population density in a Caribbean country; however, many of them did not develop those points to score full marks.

Question 6

This question tested candidates' ability to interpret economic information given in a table and to outline ways in which governments of the Caribbean promote economic development and the challenges which they face in doing so. Approximately 45 per cent of the candidates attempted this question; About 55 per cent of them responded satisfactorily.

Part (a) was generally well done and most candidates scored three out of four marks. Part (a) (iv) proved the most difficult.

Responses to Part (b) were generally good. A few candidates could not define secondary industry and a larger number of them gave the name of a firm/company they had studied as examples of a secondary industry.

For Part (c), only a few candidates were able to link 'government policies' with the concept of promoting sustainable development in primary economic activities. Most answers linked policy with increased productivity and efficiency.

Part (d) was generally well done. Candidates showed a good understanding of the challenges facing the fishing industry which was the most popular of those for which they were asked to identify challenges. A few candidates still continue to ignore the instructions and gave answers for all three primary activities given as options.

Question 7

This question required candidates to do a comparison of farming systems and the marketing of farm products in the Caribbean and the Prairies of Canada. This question had the lowest response rate in Section C, with less than 10 per cent of candidates attempting it. Scores for this question were generally low with only approximately 40 per cent of candidates giving acceptable responses.

Part (a) was attempted by approximately 95 per cent of candidates but only about 35-40 per cent scored full marks. This suggested that many candidates were not knowledgeable about the challenges related to the marketing of agricultural products in the Caribbean.

Candidates performed fairly well on Part (b) (i) which tested their knowledge of the characteristics of commercial arable farming in the Caribbean. Approximately 65-70 per cent of candidates scored full marks on this part of the question.

For Part (b) (ii), most candidates were able to correctly identify three problems which affect commercial arable farming in the Caribbean. Part (c) was misinterpreted by approximately 40 per cent of candidates. The misunderstanding seemed to have centered on the use of the term 'average age'. Reasons for the increase in the average age of farm workers could have included, for example, the fact that more young persons are now choosing to take up white collar jobs in the urban areas.

Part (d) was generally well done. Approximately 80 per cent of candidates were able to correctly outline at least two reasons why small farmers tend to grow a variety of crops. Part (e), however, was poorly done. There seemed to have been a general lack of knowledge of wheat farming on the Canadian Prairies. Candidates were very vague in their descriptions of the climatic conditions in the Prairies. Many candidates were not able to relate the farming carried on in the Prairies with climate factors such as temperature and precipitation.

Section D – Human: Environment Systems

Question 8

This question examined candidates' knowledge of the impact of hazards and how disaster organizations can improve responses to hazards or help to decrease the impact of hazards in the Caribbean. Question 8 was the most popular in Section D with approximately 50 per cent of candidates attempting it. Of this number, approximately 50 per cent obtained satisfactory grades.

Many candidates misread Part (a) (i) giving 'Australia' instead of 'Australasia' as the answer. Candidates need to be more careful when reading questions and using information from given table.

Part (a) (ii) was well done; the majority of the candidates performed well on this section. Part (a) (iii) was the most difficult. Many candidates did mathematical calculations of the difference but made no attempt to compare or give the relationship as required by the question.

For Part (b) (i), many candidates failed to mention that natural hazards posed a threat to human activities, rather they assumed that they cause destruction. Candidates need to be able to distinguish between a natural hazard and a natural disaster.

Part (b) (ii) was well done. However, weaker candidates tended to list the impacts rather than describe them. Many candidates failed to describe how people lost their lives during the given events.

In Part (c) (i), many candidates were knowledgeable about the activities of the disaster organizations but failed to state how the organizations contributed to the improved responses. Candidates need to familiarize themselves with the name(s) and functions of disaster organization(s) in their own country.

For Part (c) (ii), candidates did not relate their responses to CDEMA; instead they gave what they would do or what they thought should be done to reduce the impact of natural disasters. Most candidates did not look at this question from a regional point-of-view but dealt with it at a national or individual level. Weaker candidates spent a lot of time describing the activities without explaining how the activities can reduce the impact of natural hazards.

Question 9

For this question, candidates were asked to identify, on a map of the Caribbean, some islands which experienced hurricane or volcanic activities. In addition, the question examined candidates' knowledge of pollution and its effects on the environment. Approximately 45 per cent of candidates responded to this question with about 63 per cent of this number gave satisfactory responses.

For Part (a) too many candidates were embarrassingly unfamiliar with the islands of the Caribbean. Many of the weaker candidates gave the names of continents and countries from all over the world. Most candidates were unfamiliar with countries from the eastern Caribbean islands. Less than 10 per cent of candidates were able to correctly identify the islands of the Caribbean. More than 60 per cent of candidates failed to follow the instruction in "naming" only four countries, most candidates attempted to label all six of the countries identified on the map. In such cases, the first four in the list were considered.

In Part (b) (i) (a), most candidates got one out of the allocated two marks. Many candidates failed to mention 'harmful substances' in their definition of water pollution. For Part (b) (i) (b), candidates failed to mention the extent to which trees are removed. Part (b) (ii) well done.

In Part (c) (i), most candidates wrongfully associated global warming with the depletion of the ozone layer. Candidates were not clear about the distinction between the two. Candidates must understand that the greenhouse effect is a useful phenomenon and that the increase in greenhouse gases is responsible for global warming. In many instances, candidates identified the cause but failed to explain how it leads to global warming. For example, while a number of candidates identified deforestation, they did not mention that the removal of trees will lead to an increase of carbon dioxide (CO₂) in the atmosphere, thereby contributing to the trapping of more heat. Most candidates attained three out of six marks.

Part (c) (ii), most candidates got at least four out of six marks as they discussed coral reef at length and deviated into two effects thereafter. Although many candidates discussed the consequences, these were not linked to the *marine* environment in the *Caribbean*. The word *marine* was misunderstood and responses were given in relation to rivers. The stronger candidates were able to identify consequences such as increasing temperature leading to coral bleaching, loss of habitat and a rise in sea level as well as coastal erosion and coastal flooding.

Question 10

The question tested candidates' ability to use a bar graph to represent information given in a table. Additionally, it tested their knowledge of pollution associated with agriculture and efforts made by Caribbean countries to reduce the impact of these forms of pollution. Less than 10 per cent of candidates did this question. Of this number, 60 per cent gave satisfactory responses.

Part (a) tested the ability of candidates to draw a bar graph. Many candidates omitted the title or did not give the full name. Candidates need to pay more attention to these elements. Part (b) was well done. However, many candidates ignored the agricultural origin of pollution.

The average mark received by candidates, for Part (c), ranged from 2 to 3 out of 4. Many candidates ignored the 'individual' aspect of the question and wrote from a group/community perspective.

For Part (d), the average mark was 5–6 out of 12. The main error in this section was that the 'specific examples' were not provided. Candidates also gave general responses. Many of them left out the 'consequences' of the measure provided to reduce the impact of deforestation. Candidates also seemed to have interpreted measures to reduce deforestation as measures to reduce the impact of deforestation.

Paper 031 – School Based Assessment

Table of Contents

This section was well done. However, there were a few instances where candidates did not number the pages of the report.

Aim of Study

Candidates encountered difficulty writing aims that allowed for the collection of adequate primary data. The aims were too general. In some cases, aims were not provided. It is suggested that terms such as *identify*, *explain*, *describe* and *compare* be used when writing aims. Many aims were not geographical. Some studies focused on the entire territory or town instead of a small area in the territory/town which could be studied in the field.

Location of Study

Most candidates provided both territorial and site maps. In relation to the territorial map, many candidates did not write the names of the study area on the map or in the key. For the site map, some candidates did not provide details of the site and the surrounding environs; hence it was difficult to identify how to get to the study site. The presentation of both maps in many reports was poor. Some candidates did not include the scale, title and key on the maps. Many candidates presented Google maps which were not manipulated to show only the relevant data. Candidates should be aware of the element of a map or sketch map.

Methodology

This section was done fairly well.

How

Candidates provided at least one example of the instrument used to collect data. However, many of them did not describe clearly how the primary data were collected. The use of questionnaires and interviews was abused. Some studies did not require the use of questionnaires and interviews but they were used. This was evident in studies of coastal processes or rivers.

Where

Some candidates did not indicate the specific location of the study area in relation to the territory.

When

Candidates were able to write correctly the date and time when the studies were done.

Presentation of Data

Many candidates used a variety of illustrations to show the primary data collected but some illustrations were not appropriate for the data presented, for example, using pie charts to show continuous data. There were many instances of duplication of data, for example, showing the same data on photography as well as on a sketch. Many illustrations were obtained from secondary sources. Many illustrations lacked accuracy, neatness and clarity. Photographs were not fully labelled and correctly titled.

Quality of Data

Some candidates were not awarded full marks for this criterion. The data were not comprehensive enough to achieve the aim/s in many cases or the data were not relevant to the aim/s. Many candidates relied totally on secondary data instead of using mainly primary data.

Analysis and Discussion

In most instances, this section was not properly done. It was not well-organized; points were not well developed, well sequenced and coherent. Some candidates separated the analysis from the discussion and failed to refer to the illustration in the written accounts. Other candidates analysed and discussed data that were not relevant to the aims of the studies, for example, the number of respondents, gender and age range were emphasized in some studies related to natural processes.

Conclusion

For the most part, this section was done fairly well. However, some candidates did not relate the conclusion to the aims of the study. In many cases, new information/data were introduced. The conclusion should be a succinct summary consistent with the data obtained.

Communication of Information

Many candidates used geographical terms appropriately. However, many of the studies had numerous grammatical errors.

Bibliography

Many candidates failed to adhere to acceptable format in compiling the bibliography. Deviations from the standard include

- not presenting the reading list in alphabetical order
- using the first name of the author to begin the source entry
- excluding from the list, the Geography texts which were referred to in the report

Paper 032 – Alternative to School-Based Assessment

Question 1

This question tested candidates' ability to complete a sketch map based on an extract from a map. They were required to insert specific features on the sketch map extract. While some good responses were given, many candidates were unable to accurately locate and insert the features.

Question 2

This question tested candidates' ability to frame a research question or statement which would guide the collection of data regarding climate change awareness and the impact of rising sea levels on coastal villages in the areas shown on the map provided. The responses were poor as some candidates were unable to formulate a clear and suitable research question or hypothesis. For the scenario given, a suitable answer might have been: *What is the level of awareness of climate change and the impact of rising sea levels of the residents of the coastal villages of Seine Bight and Placenta?*

Question 3

Part (a) required candidates to list six types of data they would record in the field. It was generally poorly done. The types of data that could have been recorded include: *date, gender, age range, schooling, occupation, awareness of aspects of climate change, awareness of potential impact of rising sea level, length of residency.*

In Part (b), most candidates were not able to describe how the data would be collected and when the data would be collected. In most cases, the methodology stated by candidates was inappropriate. Suitable answers could have included

How: By preparing a draft questionnaire interview and pilot test, or prepare a questionnaire based on a pilot test. Either sample or on interview all residents over 11 plus years old.

When: Candidates could have stated the day of the week and time that the data would be collected.

Part (c) required candidates to identify one problem (excluding weather, illness and injury) they might encounter in conducting the research and to state how they would overcome the problem. Only a few candidates were able to identify a problem, and in many cases, those who identified the problem could not explain how it could be overcome.

Question 4

Part (a) required candidates to construct parallel bar graphs to show the results for the variable entitled 'Parking' from the table provided. A grid with labelled axes was provided. This was fairly well done as many candidates were able to accurately draw the bars to represent the data on the graph.

Part (b) was not well done. Candidates were required to prepare a report on the results of the survey as shown in the table. Some candidates were unable to give a suitable report on the results shown in the table. Candidates in some cases gave reasons instead of just reporting the information.

Question 5

Part (a) required the drawing of a pie chart to illustrate the data for 'Day 1' as shown in the table provided. In many cases, this was fairly well done. However, a number of candidates were only able to draw a few of the pie wedges correctly. There was also no evidence that showed that geometrical instruments were used in the construction of the charts. Lines were very crooked and untidy.

Part (b) was fairly well done as candidates were able to name one other method other than a pie chart that could have been used to illustrate the data used in (a).

For Part (c) candidates were required to write a brief summary of the data presented in Table 2 and to comment on the nature of the waste. This was fairly well done by some candidates. Again, some candidates were not able to summarize the results shown and to make the necessary generalizations based on the information provided. However, some candidates made a fair attempt at summarizing most of the findings in Table 2.

Question 6

Candidates were required to present information on a text that was used in their research in an acceptable format as part of the bibliography for the report. Many candidates were unable to do this correctly. In many instances, candidates wrote short paragraphs or even used subheadings to present the information. The acceptable format for writing the bibliography was not followed.

CARIBBEAN EXAMINATIONS COUNCIL

**REPORT ON CANDIDATES' WORK IN THE
CARIBBEAN SECONDARY EDUCATION CERTIFICATE® EXAMINATION**

MAY/JUNE 2012

**GEOGRAPHY
GENERAL PROFICIENCY EXAMINATION**

GENERAL COMMENTS

This year 12 421 candidates wrote the CSEC Geography examination. Of this number, 390 did the alternative to the School-Based Assessment SBA (Paper 032). Approximately 65 per cent of candidates obtained Grades I – III representing a slight decrease from the 66 per cent obtaining similar grades in 2011.

The perennial problem of candidates displaying a lack of understanding of basic geographical concepts continues to be evident in candidates' responses. In the SBA and its alternative, many candidates continue to display an inability and a lack of knowledge of the processes required to conduct research and to write the research report.

Some other areas of concern include the following:

- Maps and diagrams are often poorly drawn, untidy and inaccurate. Conventions for drawing maps and diagrams are often ignored.
- Lack of understanding of basic geographical concepts such as *distribution*.
- Poor language skills.
- Lack of adequate and meaningful elaboration of answers. Many candidates were able to identify, name and list factors, phenomena and so on but often do not earn full marks for a question due to lack of appropriate elaboration and explanation.

DETAILED COMMENTS

Paper 01 – Multiple Choice

This paper is comprised of 60 multiple-choice questions. The mean on this paper was 60 per cent, similar to that for 2011.

Paper 02 – Structured Response Questions

This paper consisted of ten structured response type questions. The first question tested map reading skills and was compulsory. The other nine questions tested Natural, Human and Human Environment Systems. Candidates were required to do one of the three questions based on each system. The mean for this paper was 41 per cent, slightly higher than the 40 per cent in 2011.

Section A – Map Work

Question 1

Part (a) was well done with over 90 per cent of candidates being able to give the correct compass direction and identify named buildings on the map.

There was improvement over 2011 performance on the question on bearing with approximately 80 per cent of candidates answering correctly. Incorrect responses were close to the accepted range which suggests candidates' inability to draw an accurate north line and read the protractor.

In the measurement of distance, some answers were not expressed in kilometre which was the unit of measurement required. The perennial problem continued as nearly ten per cent of the candidates were unable to correctly use the line scale and hence did not measure from zero.

For Part (a) (iii), the majority of candidates were able to list four named building in the village of Marigot. Many candidates were unable to calculate gradient and about 20 per cent of them did not attempt this section. Most knew the formula for calculating gradient but some gave the denominator as vertical interval or vertical distance instead of difference in height and for horizontal difference some wrote horizontal equivalent or horizontal shift.

In Part (b), over 80 per cent of the responses on the six figure grid references were correct. The usual mistakes — use of punctuation, reversal of the eastings and northings and identifying the square rather than the six figure point — continued to be evident. Most candidates could not identify the feature represented by the zigzag line which suggests they were unable to distinguish between the symbols in the key, or they failed to use the key at all.

In Part (c), candidates were asked to describe drainage features of the area about 70 per cent of the candidates merely listed drainage patterns or gave textbook definitions, some included unnecessary textbook diagrams and failed to use map evidence in their descriptions. Answers should have included reference to, *direction of flow, drainage density and size of rivers*.

Part (d) which tested candidates' ability to describe settlement distribution was poorly done with only 15 per cent of candidates' responses getting all four marks. The majority of candidates did not understand the concept of distribution and incorrectly included textbook definitions of settlement patterns. Many made no reference to the map; gave reasons for the location of settlement rather than describing the actual distribution and some were unable to identify the dense and sparsely populated areas. Answers should have referred to *the absence of and presence of settlement in specific areas*.

From the responses it can be concluded that most candidates found Part (e) challenging. Fewer than 15 per cent of the candidates scored full marks on this section of the question. Many gave textbook reasons for the functions of roads rather than discussing the actual distribution based on the evidence in the map. Candidates seemed to have misunderstood the word *distribution* as some gave the location of roads and tracks using map evidence to explain these locations.

Section B: Natural Systems

Question 2

This question tested candidates' knowledge of plate boundaries and the formation and development of volcanic features. This was the most popular of the optional questions in this section with approximately 42 per cent of candidates attempting it.

Part (a) required candidates to identify and name intrusive and extrusive features on a diagram. While there was awareness of the names of the features, many of them were unable to clearly distinguish between the intrusive and extrusive features illustrated in the diagram provided.

In Part (b), candidates confused the divergent and convergent plate margins and some were unable to describe the processes which occur at each margin. For those who were able to distinguish between the types of plate margins, many who described the convergent margins obtained maximum marks. It was evident that candidates were more knowledgeable about the convergent than the divergent plate margin.

For Part (c), many candidates confused features formed by plate movement with those formed from volcanic activity. Where intrusive volcanic features were discussed, candidates were not knowledgeable of their formation and many stated that these were formed within the volcano rather than below the earth's surface. Some also had difficulty distinguishing between the crater and a caldera. Most failed to adequately explain how the volcanic features change over time and the resultant landforms. Answers in this section also revealed many misunderstandings with regard to the formation of Fold Mountains at plate boundaries.

Question 3

This question tested candidates' understanding of the water cycle, river processes and limestone landforms. Approximately 40 per cent of candidates responded to this question.

In Part (a), many candidates could not identify four of the features shown on the diagram. Processes of infiltration and percolation were confused and many identified the water table or level of saturation as sea level.

Part (b) (i) was generally well done. Candidates were able to describe the processes at work in a river in great detail. Part (b) (ii) which required candidates to explain the formation of one of two fluvial landforms was poorly answered, especially by those candidates who attempted to explain the formation of flood plains. Candidates did not know its development beyond the river overflowing its bank and depositing its load. Few candidates discussed meander development. For those who chose to show the development of waterfalls, terms such as permeable and impermeable rocks were used instead of *resistant* and *non-resistant* to describe the varying rock types. In addition 'potholes' and 'plung holes' were common terms used to describe *plunge pools*. Many candidates wrote about waves and undercutting and viewed the waterfall only as a coastal feature found on sea cliffs.

In Part (c) (i), weaker candidates interpreted the term *characteristics* as 'features' and few were able to describe the characteristics of limestone such as *chemical composition*, *permeability* or *structure*.

In Part (c) (ii), most candidates explained the formation of stalactites and the responses earned better marks than those for swallow holes. However, there was the misconception by some that stalactites resulted from a drop in temperature, with the 'water' freezing and forming icicles on the roof of the cave. They should have explained that *the evaporation of the water molecules from the calcium bicarbonate solution left a solid residue of the calcite hanging from the roof of the cave*. Few candidates could describe a swallow hole and many confused this feature with 'blue holes' and 'blow holes'. Many candidates knew the formation of swallow holes resulting from carbonation but referred to it as an erosional rather than a *weathering* process.

Diagrams for both Parts (b) (ii) and (c) (ii) were generally poorly drawn and labelled.

Question 4

This question tested candidates' knowledge of Caribbean weather systems and the vegetation of tropical rain forests and tropical grasslands. Only 18 per cent of candidates did this question.

For Part (a), a climate graph was provided and most candidates scored two out of the four marks available. While candidates recognized the graph as depicting a type of tropical climate, most did not give the specific response of *tropical continental*. Generally, interpretation of the graph was weak due to inability to differentiate between temperature and rainfall (e.g. temperature range of 200 mm) and failure to read the units and the numeric data correctly.

Candidates were asked to describe the characteristics of two of four systems that affect the Caribbean in Part (b). The most popular choices were hurricanes and tropical waves. Responses on the weather in hurricanes were much better done but some candidates made references to volcanic activity, the formation and effects of the systems on the landscape and sometimes confused the details of one system with another. Candidates demonstrated the least knowledge about tropical waves.

The majority of candidates totally misinterpreted or misunderstood the requirements of Part (c), resulting in poor performances. They were asked to demonstrate how the vegetation in the tropical rain forest or tropical grassland is influenced by the climatic conditions. Better responses earned at least eight out of the twelve marks available. Poorer answers included references to crops, soils, weather and earth movements. Instead of identifying a specific characteristic and explaining how this is influenced by climate, many candidates wrote primarily on climate with no connection to vegetation.

Section C: Human Systems

Question 5

This question tested candidates' understanding of the benefits of international migration to the Caribbean, strategies to reduce urbanization and factors influencing population distribution. It was the most popular in this section as it was attempted by over 80 per cent of the candidates. Approximately 60 per cent of the candidates performed satisfactorily and showed basic knowledge of the concepts tested.

Part (a) was very well done. Weaker candidates failed to do the mathematical calculation correctly. Performance in Part (b) was poor. Answers were not clearly stated and often points listed were poorly developed. Many responses did not relate to the economic benefits of international migration.

For Part (b) (ii), performance was fair. Candidates identified strategies but many were unable to clearly develop their points. Some could not differentiate between utilities, services and infrastructure. Most candidates named a country but some identified countries which were not on the syllabus or were not Caribbean countries.

In Part (c), candidates were generally able to explain how relief and employment opportunities influenced population distribution. However, the influence of natural vegetation and soils on population distribution was poorly handled. Candidates did not seem to understand the term *natural vegetation*, as often soils and agriculture were discussed. There was limited knowledge of the influence of natural vegetation and soils on population distribution. In discussing population distribution in relation to the factors identified, candidates often explained one type of distribution and failed to explain the contrast between sparse and densely settled areas.

Question 6

This question tested candidates' knowledge of the food processing industry, tourism, mining, forestry and fishing. This question was attempted by approximately 17 per cent of candidates. Many of the responses were weak.

In Part (a) candidates were asked to interpret a table and most candidates scored at least two out of four marks. However, some were unsure of how to describe or state a trend.

Part (b) required candidates to give two benefits of the food processing industry to the Caribbean and many showed a good grasp of this content.

Responses to Part (c) (i) were often inadequate and many candidates were unable to explain the effect of the global recession on tourism in a named Caribbean country. Too many candidates attempted to explain why the economic recession prevented tourists from travelling to the Caribbean rather than explaining how the reduction in the number of visitors has impacted the tourist industry. Others wrote about the effect on the economy of the country rather than referring specifically to the tourist sector. A few interpreted global recession as global warming and wrote long answers on the negative impact on tourist travel to the Caribbean. Many of the answers on Jamaica's tourism had inaccurate information and hence earned candidates low scores. Candidates were expected to discuss factors such as *declining tourist arrival and the effect on profits, foreign exchange receipts and demand for tourism related services*.

Part (c) which asked candidates to explain challenges faced by either mining or fishing or forestry in the named Caribbean Country posed a great deal of difficulty and, except for those who chose the fishing industry, many responses received scores at the lower end of the range. Many candidates who selected forestry or mining did not understand the concept of *challenge* and wrote long responses pertaining to any problem that could impact the activities negatively. Many statements were too

general, especially when the choice for forestry was neither Guyana nor Belize and that for mining was neither Jamaica nor Guyana. It was obvious that many candidates were unfamiliar with the objectives and content of the syllabus. In addition, the responses demonstrated that candidates did not have access to appropriate sources of information to equip themselves with sound geographical knowledge in their preparation for the examinations. Where correct statements were made, the development was weak, or inappropriate.

Question 7

This question tested candidate's knowledge of agriculture in the Caribbean and the Prairies of Canada. Only about three percent of the candidates attempted this question. This made it the least popular in this section and also on the paper.

Part (a) was poorly done. Most candidates failed to draw a reasonable outline of a Caribbean country and could not locate and name an area of commercial arable farming. Part (b) which tested understanding of challenges facing peasant farmers was generally well done.

Part (c) (i) proved to be difficult for candidates. Many candidates could not account for the declining contribution of agriculture using the headings given. Most could not differentiate the concepts of *cost of production* which relates to the expenses incurred in producing from *prices* which deals with the earnings from the agricultural product.

Part (c) (ii) which asked for a comparison of diversification in the Caribbean and the Prairies of Canada was poorly done and most candidates scored no marks. Candidates failed to focus on *diversification* and simply compared characteristics of commercial arable farming in the Caribbean and Canada. Many candidates showed a lack of knowledge about farming in the Prairies.

Section D: Human – Environment Systems

Question 8

This question examined candidates' knowledge of the effects of hazards and responses to these at the individual and national levels. Approximately 36 per cent of candidates did this question.

Part (a) required that candidates complete a bar graph on a given grid and to provide a title for the graph. Some wrote imprecise titles such as the number of people affected without adding 'by five disasters in Dominica'.

In Part (b), many candidates scored between six and eight marks (this part was marked out of 8). Some candidates, instead of identifying the hazard, described it and did not clearly say what makes it a hazard. Some also confused hazard and disaster.

For Part b (ii) some candidates failed to describe the effects of the of the identified hazard such as *destruction of property* and *loss of lives* while in other cases some described the effects of more than one hazard.

Part (c) required that candidates discuss precautions to reduce the impact of hazards. About 25 per cent of candidates could not differentiate between individual and national precautions and about 50 per cent of the candidates failed to explain how the action reduced the impact.

Question 9

This question tested candidates' knowledge of pollution, threats to coral reefs and remediation measures. It was the most popular question in this section. Approximately 43 per cent of candidates responded to it.

Part (a) proved to be the most challenging; most candidates lacked the basic skill to construct a pie chart and as a result failed to earn a mark.

In Part (b) (i), most candidates in defining the term *pollution* failed to mention that the environment is contaminated or there is an undesirable change. Some defined population instead and so did not earn any marks. Part (b) (ii) was well done with most being able to name one type of pollution as well as its source.

In Part (b) (iii), candidates were able to identify and describe ways by which pollution could be reduced. However, a few candidates failed to follow the instruction given in the question and subsequently lost marks.

For Part (c) (i), most candidates identified the actions of humans to which coral reefs are vulnerable but did not explain how these actions destroyed coral reefs. Candidates performed poorly in Part (c) (ii). Most repeated the human activities mentioned in Part (c) (i) by just adding “do not” or “stop” at the beginning of their answers; for example, Do not walk on coral reefs. Candidates who scored full marks for this question explained how measures such as *the setting up of marine parks, sewage treatment plants and public education can reduce degradation of coral reefs*.

Question 10

This question tested candidates’ knowledge of the effects of global warming and the causes and consequences of deforestation in the Caribbean. It was the least popular in the section, with 22 per cent of candidates attempting it.

Candidates performed best in Part (a) although some candidates failed to give the graph a title. Part (b) required candidates to define *global warming* and *greenhouse effect*, and to describe the causes of global warming. It was poorly done with most candidates confusing global warming with the concept of CFCs and ozone layer depletion. Acceptable definitions should state that *global warming is the increase in the average global temperatures over time and greenhouse effect is the process by which certain gases absorb heat from the earth and re-radiate some of it back to the earth causing the atmosphere to become warmer*.

In Part (c) (i), candidates were expected to give two likely effects of global warming on the Caribbean. Acceptable responses included *reference to rising sea levels, coral bleaching and marine erosion*. Most candidates were unable to adequately explain two likely effects.

For Parts (c) (ii) and (iii), many candidates were able to state two causes of deforestation but some did not adequately explain two consequences.

Paper 031 - School-Based Assessment

Table of Contents

The majority of students were able to produce a satisfactory table of contents. However, there were several who did not number their pages or had sections incorrectly sequenced.

Aim of Study

For the most part, the aims presented by students needed to be more specific and measurable. In most cases, aims were either too general or were not geographical in focus. Several students did projects on topics that were not in the syllabus. In some cases, the study area, place and the aims of some studies were not included in the report. Where aims were included they were poorly written. Acceptable aims included examples such as *To examine and account for factors influencing the development of coastal features at Scott’s Head, Dominica*. A poor aim such as to investigate tourism development in (territory) would receive marks at the very lowest end of the mark range. Students are

encouraged to use those verbs set out in the specific objectives of the geography syllabus such as *assess*, *evaluate*, *analyze* and *discuss* in framing their aims. With the use of these words, studies are much less likely to be descriptive in nature and will tend to be more evaluative, if the aims are properly worded.

Location of Study

Most students did not perform well in this section. Candidates must be reminded that the study area should be clearly highlighted on the territory map. Study area maps should have specific features studied clearly labelled and highlighted. On many case maps which candidates submitted were untidy and had labelling in cursive script. Details such as neighbouring settlements, rivers, access roads and other principal features should also be included on study area maps. In too many projects, the border, title, key, north arrow and scale were missing from both territory and study area maps. Where candidates use computer generated maps, such as those from Google Earth, these should be manipulated to suit the purpose specified in the aim of the study and unnecessary details should be removed.

Methodology

This section was fairly well done. Most students were able to indicate *where* and *when* field work was conducted but had challenges in clearly stating *how* field work was done. There was an over-reliance on questionnaires and some were used even when they were not appropriate to the aim of the study. As such, many studies, such as those done on pollution, tended to be based on respondents' perceptions rather than quantitative measurements. In some cases, sample questionnaires were placed in the methodology or presentation of and analysis of data sections rather than in the appendix. Candidates should include sampling details such as the population size and sampling method used.

Presentation of Data

Improvement is required in terms of the illustrations presented. Some of the challenges included:

- Failure to give illustrations a title and figure number
- Improperly labelled axes on graphs and unlabelled photographs
- Diagrams not appropriate to the type of data presented
- The use of more than one type of diagram to represent the same data
- The inclusion of less than three different types of diagrams
- Weak integration of illustrations
- Unclear and untidy diagrams
- All or most of the candidates from the same school having identical illustrations

Students need to be reminded that no credit is given for illustrations copied from secondary sources.

Quality of Data

Some students included 'Quality of Data' as a separate section in their projects. Many students failed to obtain full marks for this section because their data was either inappropriate or irrelevant to the aims or lacked evidence of field work. Too often, the data were not comprehensive enough to achieve the aim of the study and this led to superficial analysis.

Analysis and Discussion

By and large, students were unable to appropriately analyse the data presented or to evaluate their findings in a properly sequenced and logical manner. More guidance is required in this area. Many studies, especially those based on questionnaire surveys, tended to be descriptive and based on secondary data or perceptions of respondents. Students must be encouraged to account for and explain patterns and trends in their field data and clearly relate these to the aim of the study. Coastal studies, needed to show measurements of features described as well as a discussion of the influence of geological, wave action, human and other factors on the formation of these features.

Conclusion

For most studies, the conclusions were too simplistic. Students had some difficulty in summarizing their findings and others attempted to introduce new information not mentioned in the analysis and discussion. Often, students engaged in discussions in the conclusion which should have been placed in the presentation and analysis of data.

Communication of Information

Students must be encouraged to review and thoroughly edit their projects before submission in order to reduce the incidence of spelling, grammatical and punctuation errors. Students must be strongly encouraged to make better use of appropriate geographical jargon.

Bibliography

Many students failed to adhere to acceptable format in compiling the bibliography as outlined in the Geography syllabus. Many of them did not present their sources in alphabetical order and used the first name of the author rather than the surname when listing sources. Some students also did not mention sources referred to in the study.

The correct format for referencing internet sources must also be adhered to — the author of the article and the date of publication need to be included.

Paper 032 - Alternative to School-Based Assessment (SBA)

Question 2

Candidates performed poorly. This question tested their ability to frame a research question or hypothesis on population structure. It does not appear that the candidates were familiar with the word *hypothesis* and were therefore unsure as to how to respond. A suitable response for the scenario given might have been: *How do the occupations and age structure in Wesley compare with the national pattern?*

Question 3

Part (a) required candidates to identify secondary sources of geographical information. Many candidates could not do this and some confused the term data *with instruments of data collection*.

In Part (b), most candidates were able to identify an appropriate time to conduct the research but many did not mention sampling techniques.

Part (c) required candidates to identify one problem (excluding weather, illness and injury) they may encounter in conducting the research and state how they would overcome that problem. Many were able to identify a problem and explain how it could be overcome.

Question 4

Part (a) required the construction of an age – sex diagram. Many candidates were aware of what was expected. However, a significant number of them plotted line graphs. Part (b) proved challenging for the vast majority of candidates. They were unsure as to how to use both tables in writing a report on the characteristics of the population.

Question 5

Part (a) (i) required candidate to construct a pie chart from given data.

Candidates showed the ability to convert percentage to angles. However free hand drawings compromised the accuracy of the pie charts. Candidates must be reminded that geometry sets will be very useful when doing this examination.

Many candidates performed poorly. For Part (b) most candidates were able to use another method of illustrating the data. In many cases, in Part (c) candidates simply rewrote the data given in the table. They were unable to comment on the nature of the distribution. All that was required was for candidates to draw some conclusions based on the relative importance of the data. For example: *the small percentage for industry shows that there is very little manufacturing taking place in the village.*

Question 6

The ability to write up a bibliography in an accepted format was tested by this question. Most candidates did not perform well on this question. They must be made aware of how to correctly construct a bibliography using the APA referencing style.

Recommendations

1. Teachers need to emphasize the skill of drawing sketch maps and statistical diagrams. Teachers should also stress the meaning of terms like *list*, *describe* and *account for* when answering questions
2. Some guidance should be provided in the classroom to help students develop the practical skills in constructing pie charts. Also students should be guided in the selection of examination questions and how to structure their responses.
3. Teachers should endeavour to teach basic geographical concepts.

C A R I B B E A N E X A M I N A T I O N S C O U N C I L

**REPORT ON CANDIDATES' WORK IN THE
CARIBBEAN SECONDARY EDUCATION CERTIFICATE® EXAMINATION**

MAY/JUNE 2013

**GEOGRAPHY
GENERAL PROFICIENCY EXAMINATION**

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GENERAL COMMENTS

This year 12,571 candidates sat the CSEC Geography. Approximately 68 per cent of these candidates obtained acceptable grades of Grades I – III. This figure is consistent with that of 2012.

Candidates' responses continue to show that there is a lack of understanding of basic geographical concepts and terms. This was particularly evident in the interpretation of the questions. Candidates misinterpreted terms such as temperature range, characteristics of soil, and land use pattern.

Some other areas of concern include the following:

- Maps and diagrams were often poorly drawn, untidy and inaccurate. Conventions for drawing maps and diagrams, even such basic conventions as giving a title, were often ignored.
- Poor written language skills.
- Lack of appropriate elaboration in describing items and giving reasons when explaining measures and processes.
- Failure to provide specific examples when requested by the questions.

In Papers 031 (School-Based Assessment) and 032 (Alternative to School-Based Assessment) many candidates displayed an inability to conduct geographical field research and in Paper 031, in particular, to write independent reports on that research. The use of computer graphics in Paper 031 seems to be having a negative impact on the ability of candidates to draw graphs and pie charts.

Unfortunately, many candidates earned Grade VI, a grade which indicates a very limited knowledge and understanding of the content and concepts tested. This suggests that these candidates were not adequately prepared to write this examination.

DETAILED COMMENTS

Paper 01

This paper consists sixty multiple choice questions. Performance was generally satisfactory. The mean was 58 per cent compared to 60 per cent in 2012.

Paper 02 – Structured Response

This paper comprised ten structured response questions, the first of which was compulsory and tested map reading skills. The other nine questions tested Natural Human and Human Environment systems. Candidates were required to answer one of the three questions based on each system. The mean for this paper was approximately 49 per cent, a similar figure to that in 2012.

Section A: Map-reading (Compulsory)

Question 1

This question was not well done as approximately 70 per cent of candidates earned between 0 and 10 marks, out of a possible 28. The mean was 8.89 or 32 per cent.

Part (a), which tested candidates' ability to give a six-figure grid reference for a location was not well done. Over 80 per cent of candidates were able to give the correct grid square for the feature but fewer than half of those were able to calculate the correct fractions to give the six-figure reference.

In Part (b) (i), candidates were asked to give the ratio scale of the map as a statement by saying how many metres were represented by one centimetre on the map. About 20 per cent gave the correct answer. Candidates gave answers which suggested that they had no concept of distances. Common answers were one centimetre represented 25,000 metres and 2,500 metres instead of *250 metres*.

Part (b) (ii) was fairly well done despite the lack of a concept of distance seen in (b) (i). About 70 per cent got the correct answer using the line scale.

Part (c) (i), which tested the ability to identify grid bearing was also well done as over 80 per cent gave the correct bearing.

Part (c) (ii) tested the ability to give a compass direction. The answer was *west*, but only about 50 per cent gave that answer.

Part (d) provided a grid on which candidates were required to plot various features taken from the map extract. Although the question said the grid was at half the scale, the grid provided was at the same scale as the map. This error did not pose any problem to the candidates. However, many candidates lost marks because they failed to label or provide a key for the beach and airport. Symbols must be labelled or explained in a key. Candidates were asked to give the scale as a representative fraction and despite the grid being obviously at the same scale, because the question said it was at half the scale. The scale of the map and half the scale were both accepted as answers. Many candidates gave incorrect answers such as 1:12,500. The concept of scale, the representative fraction in particular, was clearly not understood.

Part (e) required candidates to describe four characteristics of the land use pattern. They were able to identify the types of land use but most failed to describe the pattern. Candidates were expected to say specifically where the types of land use were found with reference to the position on the map. For example, forests could have been described as *being found largely in the northern and central areas on steep slopes*. Just saying on steep slopes would not be enough and was not considered an adequate response. Many, instead of describing the spatial distribution of the types of land use, gave descriptions of settlement patterns and drainage patterns, clearly misunderstanding the term, *land use pattern*.

For Part (f), candidates were asked to give reasons to explain the distribution of cultivation and plantations, using evidence from the map. Many were able to identify some factors influencing the distribution but failed to give adequate explanations for role of the factor. An unacceptable number of candidates had the misconception that estates were located close to the coast to obtain seawater for irrigation.

Section B: Natural Systems

Question 2

This was the most popular question in this section. It was attempted by more than 50 per cent of the candidates and about half of them gave satisfactory answers. It tested the candidates' ability to draw a diagram showing intrusive and extrusive volcanic features and their knowledge of plate boundaries and of the processes leading to the formation of volcanoes and fold mountains. The mean of 11 or 45 per cent was the highest in this section.

Part (a) which required candidates to draw a diagram illustrating features of a volcano was not well done. Many candidates scored only one mark of the possible four. Intrusive features were placed on the surface (without any explanation claiming exposure by erosion) and many when drawn underground, indicated no apparent source of magma. Candidates confused sills and dykes and showed them as small as magma chambers feeding a volcano. Lava plateaus were often depicted with a dome shape fed by a pipe. Candidates need to pay more attention to diagrams when studying topics in the Natural Systems.

Part (b) required the candidates to name two types of plate boundaries and describe what happens at one of them. This was the part of the question that was answered best. Some candidates however did not earn full marks as they failed to give an appropriate example.

In the answers to part (c), many candidates were able to explain the formation of volcanoes better than that of fold mountains. Some candidates did not know that fold mountains were *formed by compression of the sediments on the edge of converging plates*.

Question 3

This question tested candidates' understanding of the water cycle, their knowledge of drainage patterns and their ability to explain the formation of surface and underground features in limestone areas. More than 60 per cent of the candidates earned less than 14 out of a possible 24. The mean was 9.47 or 40 per cent.

Part (a) was very well done but some candidates did not earn any marks because they listed the processes but did not indicate which of the letters in the diagram applied to each one.

In Part (b), candidates were able to name two drainage patterns but did not describe them adequately, even with the aid of diagrams. Some wrongly stated that tributaries take water away from the river and placed arrows in their diagrams to show the flow away from the main rivers. The syllabus requires candidates to be able to describe trellis, radial and dendritic patterns and they should be able to draw appropriate diagrams.

In Part (c), the majority of the candidates knew of the features created in limestone but many were not clear as to whether they were surface features or underground features. Many did not detail the processes explaining the formation of the features.

Question 4

The mean of this question 5.6, or 23 per cent, the lowest in the whole paper. It tested the candidates' ability to read and interpret a climate graph, explain the process leading to relief rain, describe any two characteristics of soil and explain how climate and vegetation influence the formation of soils. All of these topics proved to be difficult for the candidates.

For Part (a) a climate graph was provided and most candidates scored 2 out of the 4 marks available. While candidates read the values of temperature and rainfall correctly, the majority did not recognize the relationship between temperature and rainfall. Many did not understand what was meant by the "range of average temperature".

Candidates were asked to define the terms weather and climate in Part (b) (i). Surprisingly, most were unable to do so. In Part (b) (ii), they were asked to explain what happens when warm, moist air is forced to rise over a mountain. Few were able to recognize the process leading to relief rain and to explain what happens in any great detail.

In Part (c) (i), candidates were able to identify characteristics of soil but could not develop the description. Many gave examples of types of soil as characteristics.

The majority did not understand the requirements of Part (c) (ii). Some knew the characteristics of the specific climatic types and vegetation types but were unable to relate them to soil formation. Some recognized weathering material but did not link it to soil formation. Candidates were asked to explain the influence on the formation of soil in either equatorial or tropical continental areas but some failed to say which area they chose and so lost marks.

Section C: Human Systems

Question 5

Many candidates who answered this question gave satisfactory responses. It tested candidate's understanding of population distribution and their ability to define key terms and understand the factors affecting population change, using case studies (examples) of populations inside and outside of the region. The mean was 10.35 or 41 per cent, the lowest in this section.

Answers to Part (a) were barely satisfactory. Not many candidates were able to accurately draw and label a sketch map of a named Caribbean territory and to correctly indicate where dense or sparse settlements are located within that territory. Some candidates used the map of Nevis provided for Question 1. Although Nevis is not a country, they were not penalized nor were those who drew one island of other multi-island countries. Candidates can learn to sketch maps by using geometric shapes to form a frame which they can then enhance.

Part (b) (i) was not generally well done. Candidates were unable to give complete definitions of the terms: 'birth rate' and 'infant mortality rate'. Most candidates gave better responses for birth rate. Candidates were expected to state that *birth rate is the number of babies born per 1-000 persons per year in a nation or country. Infant mortality rate is the number of babies under one year old who die per 1-000 live births per annum for a nation or country.*

Part (b) (ii) was also not well done. Many candidates were aware of the impact of migration on population increase; however, they did not develop the concepts of net migration and natural increase. Candidates were expected to briefly outline that *natural increase occurs when birth rate exceeds death rate or total number of births per annum outstrips total number of deaths per annum and net migration occurs when **immigration** exceeds **emigration** or total number of persons entering a country outstrips the total number of persons exiting a country.*

Part (c) (i) was fairly well done by many candidates as they were able to use appropriate examples and to fully explain how population distribution is affected by the availability of services. The candidates who selected relief did not score well as they did not indicate that *flat or gently sloping areas attract settlement due to the ease of construction, developing infrastructure or suitability for agriculture*, or to give reasons why it is difficult to settle on hilly, steep or mountainous areas. Some candidates did not follow instructions and wasted time giving responses to both relief and services instead of just one of the two.

Part (c) (ii) posed a great challenge for many candidates because they needed to know about growth rates in More Economically Developed Countries (MEDCs) and one Caribbean country and how growth rates were affected by fertility rates and migration. Many of them were quite familiar with migration but dealt poorly with the relationship between fertility rate and population growth. Also they were unable to correctly use **examples of a developed country listed in the syllabus**. Several candidates used a Caribbean country that has a greater level of development than the rest of the region such as Barbados, Trinidad and Tobago, Bahamas, Turks and Caicos rather than using a MEDC outside of the region. Far too many candidates cited China as a MEDC.

Many of the candidates were not familiar with the relative fertility rates of the MEDC and the Caribbean country that they selected for comparison. As a result, they were unable to link fertility rates to the population growth rates. Only a small number of the candidates were able to adequately demonstrate how fertility rates contributed to higher or lower growth rates. This may suggest that more attention needs to be paid to the effective teaching of this topic. In fact, some of the weaker candidates misinterpreted fertility rates as the ability of rich soils to produce high yields and hence higher population growth. Too many candidates incorrectly proposed that the size of countries impacted on population growth rate. They stated, for example, that the United States of America being larger than Trinidad and Tobago, must therefore have a higher population growth rate.

Candidates were expected to identify trends or patterns in fertility rates then explain some factors influencing these rates namely religion, career choices, culture and the role of females of child bearing age.

The migration section of this question was fairly well answered although most candidates needed to organize and structure their responses more clearly. Many of them had a fairly good understanding of how push - pull factors led to and impacted on population growth in the two countries. Many were able to recognize that *emigration from the Caribbean is relatively high and tended to slow the population growth of Caribbean countries, while MEDCs, such as Canada and the United Kingdom, which received large numbers of young immigrants with higher fertility rates have increasing population.*

Weaker candidates, however, interpreted 'migration' to mean rural to urban migration and explained the effects of temporary movements associated with tourism.

Question 6

This question tested candidates' skill in reading and comparing pie-charts and their knowledge and understanding of the types and benefits of different economic activities in the Caribbean. The mean was 10.55 or 44 per cent.

In part (a) candidates were asked to read and compare two pie-charts. It was generally well done.

Part (b) required candidates to give a definition of 'secondary economic activity', an example of a secondary economic activity and the main features of three types of tourism. It was well done but weak candidates confused 'secondary economic activity' with 'secondary level of education'. Candidates lost marks for failing to give an example of secondary economic activity because they simply said manufacturing rather than giving an example of a manufacturing or construction activity. In giving the main feature of the types of tourism, some candidates did not link the types with attracting visitors. Answers on ecotourism and sports tourism were not as good as those on heritage tourism.

Part (c) proved difficult for half of those who attempted this question. They were asked to explain three benefits of primary activities to the Caribbean with reference to specific examples. Some named tourism as a primary economic activity. Some listed three benefits, but gave no specific examples and no explanation of the benefits to the Caribbean. By contrast, a few candidates earned full marks showing a specific benefit linked to a specific primary activity and gave a satisfactory explanation of the benefit.

Candidates need to pay attention to the instructions of the question and the marks allocated. They should note that the instruction words have specific meanings. 'Explain' does not mean 'list'. It requires an expansion of the point. For instance, *earning foreign exchange helps to pay for imports and provides funds for development.*

Question 7

Candidates were required to construct a pie-chart, given three percentage values; state benefits of agriculture, outline two problems faced by peasant farmers in the Caribbean and to give reasons for the decline of the importance of agriculture in a named Caribbean country and also compare wheat farming and commercial arable farming in a named Caribbean country using the two headings given. This was the least popular question in this section. The mean was 12.21 or 51 per cent.

In Part (a), the pie-chart was fairly well done. Some responses lacked a title. Some candidates shaded the three sectors. That should not be done in an examination unless the question asked for it.

In part (b) (i), most candidates had difficulty stating four benefits of agriculture. In Part (b) (ii), even the weakest candidates were able to identify the problems faced by peasant (small) farmers but they had difficulty earning full marks as they did not outline the problems adequately.

Part (c) (i) was answered poorly as candidates wrote about the *importance* and the *decline in agriculture* rather than *the declining importance of agriculture.*

Part (c) (ii) was fairly well done but many candidates failed to earn full marks because they did not develop their points fully in making the comparison. Both parts of (c) saw several candidates naming countries outside of the Caribbean, but most identified a Caribbean country.

Section D: Human – Environment System

This section had responses which earned the highest average marks. Most candidates had their best answer in this section.

Question 8

This was the most popular question, with a mean of 13.44 or 56 per cent. It tested the candidates' skill in extracting information from a table and their knowledge of the effects of one of the natural hazards and the nature of a natural hazard. They also had to explain ways an individual should prepare for a chosen natural hazard and measures used by a national disaster organization in a named Caribbean country in response to hazards. The answers were good and in most cases, it was the best answer in the candidate's entire script, but there were some weak areas.

Most of the candidates got Part (a) (i) wrong as they did not check the list to realize that the year 1933 was listed twice. Candidates should be cautious of this type of problem in using tables.

In Part (b), many candidates in defining a natural hazard did not include the element of threat.

Part (c) was the best answered part of this question. Nearly all the candidates described the effects of the chosen hazard and the specific causes. A few candidates did not get full marks because they did not develop their answer by giving the specific cause of the effect.

Part (d) (i) was also well done. Most candidates gave the reasons for the specific acts of preparing for the chosen hazard and earned full marks.

In Part (d) (ii), about half the candidates did not identify a national disaster organization in a named Caribbean country and/or give reasons for two measures these organizations use in response to hazards.

Question 9

This was the second least popular questions in this section. It tested the candidates' ability to use data in a table, knowledge of the definition of the term 'greenhouse effect' and of the causes of coral reef destruction and deforestation and their ability to explain the contribution of global warming to the tourism industry and of the impact of the destruction of coral reefs on that industry. Despite some sections which candidates did not answer adequately, the question had the highest average mean, 14.37 or 60 per cent, in the examination.

Part (a) (i) to (iv) tested the candidates' interpretation of a table showing global average temperature change over six periods. Candidates performed reasonably well on this task but most failed to interpret the word 'trend'.

Responses to Part (b) (i) were less than satisfactory. The term, 'greenhouse effect' was not fully understood by candidates which was perhaps reflected in the variety of inappropriate answers. Some candidates confused 'greenhouse effect' with 'global warming'. More than 50 per cent of the candidates who did this question failed to score a mark for Part (b) (i).

Part (b) (ii) tested candidates' grasp of the causes of deforestation and was well done. About 90 per cent of the responses earned full marks for this question.

Part (b) (iii) was answered appropriately by some candidates did not recognize that they had to do more than just list two causes of coral reef destruction but they gave a brief description of the causes.

In Part (c) (i), most candidates were able to identify ways in which tourism development contributes to global warming, but failed to fully explain how these actions or activities contribute to it. Only about 25 per cent of the responses scored full marks for this section.

Part (c) (ii) proved difficult for most candidates. They failed to make the link between coral reef destruction and its effect on the tourism industry. Some simply listed causes of reef destruction, instead of looking at the impacts the destruction could have on the tourism industry.

Question 10

This was the least popular question in the whole examination and was attempted by fewer than 5 per cent of the candidates. The mean was 12.32 or 51 percent. It tested the candidates' ability to construct a bar graph, to describe types of pollution and measures to reduce their harmful effects and to explain measures used to reduce the effects of deforestation.

Part (a), which tested candidates' ability to construct a bar graph, was generally well done. Some candidates failed to label the axes and some had difficulty with the scale given (1cm to represent 50,000 people), perhaps not realizing that the data in the table was in thousands.

Candidates did well on Part (b) in describing two types of pollution but many focused on the effects rather than on measures to reduce the effects as required by the question.

Part (c) had the weakest responses. Candidates failed to give reasons for the measures used to reduce the effects of deforestation and most were unable to give an example of the measure in the Caribbean. It is not enough to know how but one must be able to say why and where the measures are being used.

Recommendations

- Students (and teachers) in preparing for the examination should use the FREE guide for CSEC Geography on the Internet. This guide is provided by CXC through Notesmaster Caribbean at <http://caribbean.notesmaster.com>.
- Students need to acquire the skill of drawing sketch maps, including those of Caribbean countries, and statistical diagrams.
- Students should pay attention to the details of and practice drawing relevant diagrams, especially of features in the Natural Systems.
- Candidates should know the meaning of terms like 'list', 'state', 'describe', 'outline', 'explain' and 'account for' when answering questions.
- Simple map-reading skills need to be practiced frequently to be mastered.
- Estimating distances, 10, 20, 100, and 400 metres, even as a game, to build a concept of distances would be helpful.
- Attention should be given to the objectives on climates, vegetation and soils since questions on them are always poorly done.

Paper 03/1 – School-Based Assessment

GENERAL COMMENTS

There is need for greater guidance for students in selecting topics for study.

Plagiarism in reports is a problem which ought to be addressed by teachers, as stated in the syllabus. Some teachers appear to condone plagiarism by grading reports that include plagiarized material without applying a penalty and then leaving it to the decision of the moderation team to detect and penalize. When these cases reach to the CXC moderators the consequences for the candidates are more drastic.

Comments on the body of the Field Report

Strategy Sheet

More attention has to be given to the strategy to ensure the study is appropriate and manageable.

Table of Contents

The majority of candidates were able to produce a satisfactory Table of Contents. However, the recommended format was not followed by many. This format is:

- Aim
- Location Maps
- Methodology
- Presentation and Analysis of Data
- Conclusion
- Bibliography
- Appendix

Aim of Study

The aims presented by candidates needed to be more specific and measurable. In a lot of cases, aims were either too general or were not geographical in focus. For example, a study “to determine the types of pollution in Country A” is beyond the scope of a CSEC study. Several candidates did projects on topics that were not in the syllabus. The study area was not included in the aims of some studies. The exact area and the territory must be clearly stated.

A good example of an aim is *To examine and account for the distribution of litter in the streets of Town /suburb (named) in country (named) on Saturday (date)*. A vague, non-geographical aim is ‘To investigate biodiversity in (named territory)’. Candidates are encouraged to use verbs such as *assess, examine, evaluate, measure, analyse* and *discuss* in their aims or to pose a question to test an idea. This will help focus the work in the field. To ensure that the topic is geographical, apart from being on the CSEC syllabus, the spatial distribution of features or characteristics should be included in the aim.

Location of Study

Most candidates failed to score full marks on this aspect. Maps were untidy and lacked information. Candidates are required to provide a map of the territory on which the position of the study area is shown and a site map of the study area. The study area must be clearly highlighted on the territory map.

All maps should be drawn neatly. A title, scale, north arrow, key, and border should be provided. Labels should be printed (and not in cursive script).

Site maps need to have the specific features studied clearly labeled and highlighted. Details of the immediate environment, such as roads, physical features and buildings should be shown.

Where maps are photocopied or computer generated they must be altered to suit the purpose. Unnecessary details should be removed and labels, including the name of water bodies, added.

Methodology

There was an over-reliance on questionnaires and these were often used even when they were not appropriate to the aim of the study. As such, many studies, such as those done on pollution, tended to be based on respondents' perceptions rather than quantitative measurements. Teacher input into the strategy is necessary so as to prevent this. Methods must suit topics.

Many candidates did not indicate the time period during which the study was done. Topics chosen should permit the collection of primary data in the field and the specific times of data collection should be recorded. In other words, **where** and **when** the study was conducted must be clearly stated, for example, *5 January 2013, between the hours of 10:00 a.m. and 3:00 p.m. at Site X, Parish/Town, Country C.*

Where questionnaires are used as the main instrument for data collection, candidates should give the sampling details, such as the population size, the sampling method and size of the sample. A copy of the questionnaire should be included in the appendix.

Presentation of Data

Some studies had data that did not support the aim. Work in the field must be guided by the aim. The data should be presented using different illustrations and integrated into the discussion, and the illustrations must be appropriate. Some candidates used a pie chart to show an item with a 100 per cent value, which was clearly inappropriate. Although tables, bar charts, line graphs and pie charts should all be used, candidates should select the method of presentation which is most appropriate. Some candidates used illustrations from secondary sources, for example pictures and diagrams from textbooks or the Internet. These are only acceptable if used for comparison with pictures or sketches made at the site during the field work for the study.

There were some other weaknesses which were also noted last year. These included:

- failure to give illustrations a title and figure number
- improperly labelled axes on graphs
- unlabelled photographs and photographs with no arrows pointing to features being highlighted
- use of more than one type of diagram to represent the same data
- unclear and untidy diagrams

In some cases, all or most of the candidates from the same school presented identical illustrations. Candidates need to be reminded that no credit is given to illustrations copied from secondary sources.

Quality of Data

Many candidates failed to obtain full marks for this area because their data were either inappropriate or irrelevant to the aims or lacked evidence of field work. Too often, the data were not sufficient to achieve the aim of the study.

Analysis and Discussion

Generally, candidates did not do well in this section as they failed to refer to the data and illustrations appropriately, to analyse the data in relation to the aim and to present their findings in a properly sequenced and logical manner. Candidates must be encouraged to account for and explain patterns and trends in their field data and clearly relate these to the aim of the study. Candidates who rely only on secondary data can earn no more than two marks in this section.

Conclusion

For most studies, the conclusions were too simplistic. Candidates had some difficulty in summarizing their findings and others attempted to introduce new information not mentioned in the analysis and discussion. Candidates often engaged in discussion that should have been placed in the section for presentation and analysis of data. Candidates need to be aware that in the conclusion they have to give a concise summary of their findings and state whether or not the aim was achieved.

Communication of Information

Candidates must be encouraged to review and thoroughly edit their projects before submission in order to reduce the incidence of spelling, grammatical and punctuation errors. They must be strongly encouraged to make better use of appropriate geographical terms and to ensure the report is within the word limit.

Bibliography

Many candidates failed to adhere to the format in compiling the bibliography as outlined in the Geography syllabus. Many of them did not present their sources in alphabetical order and used the first name of the author rather than the surname when listing sources. Further, some candidates did not include sources referred to in the study.

Candidates should use at least three references.

Paper 032 (Alternative to SBA)

GENERAL COMMENTS

This paper is a substitute for the field study report and is usually done by students who are not attending an educational institution where they will have the benefit of a computer teacher to provide the required guidance to complete the school-based assessment. It is designed to test the same skills demonstrated for the work in the field. It tests a candidate's knowledge of field research techniques, methods of presenting information and data, and ability to summarize and analyse data obtained in the field. It is clear that the majority of the candidates were not adequately conversant with these techniques and methods. The mean on the paper was 13.76 or 34 per cent. This was consistent with the performance in 2012.

Question 1

This question required the completion of a site map and a location map from a topographical map with a scale of 1:25,000. The site map was at the same scale as the map while the location map was a thumbnail size. Most candidates had difficulty in plotting the features on both maps.

Question 2

Candidates performed poorly on this question which tested the ability to frame a research question or hypothesis. A suitable response for the scenario given might have been: *Are most of the tourists coming from other areas in the Caribbean and mainly interested in rainforest, reefs and ruins and not the beaches?* In other words, the suggestion given in the question could have been rephrased as a question to guide the research.

Question 3

Part (a) required candidates to identify six variables on which to collect data. Many candidates were not familiar with the term 'variables' so responses were poor. Most candidates listed methods of collecting data rather than the data they would collect (such as the *origin of the tourist, the four main reasons for visiting, age and gender*).

In Part (b) most candidates who knew the term 'variable' were able to identify an appropriate time to conduct the research but most did not mention sampling techniques.

Part (c) required candidates to identify one problem (excluding weather, illness and injury) they might encounter in conducting the research and state how they would overcome that problem. This was not done well. Trivial reasons, such as a school event were advanced. The better answers anticipated the unwillingness of tourists to be interviewed by a strange person.

Question 4

Part (a) required the construction of a line graph showing temperatures in Nevis and given in a table. It was well done. In a few cases, the graphs were untidy.

Part (b) asked candidates to show how two features of the temperature in the table might make the climate suitable for agriculture. This was a difficult exercise for most candidates. Candidates needed to examine the values and note that there were no freezing temperatures, and that temperatures were suitable for plant growth throughout the year.

Question 5

Part (a) required the candidate to name the instrument used to collect rainfall data. Surprisingly, the majority of the candidates did not give the correct answer.

Part (b) was fairly well done. It asked for a bar graph to show rainfall data given in a table.

Part (c) asked for six possible reasons for the above average rainfall at the station in eastern Nevis for the month shown in the table. Candidates had great difficulty doing this. They needed to recognize the difference between weather and climate data, the difference between the average data for the whole island and the record for one station, the importance of the position of the site on the eastern side of the island, the vagaries of weather and of the risk of error in the measurement and recording of rainfall or in placement of the rain gauge.

Question 6

The knowledge of the elements of a book that are to be given in a bibliography was tested by this question. Most candidates did well on this question. However, some had absolutely no idea that the missing element was the city of publication and suggested the size of the book or the number of pages.

Generally, candidates need more instruction on the requirement for Paper 032 if they are to improve their performance. Candidates need to know how to conduct fieldwork and prepare a report in order to achieve higher scores on this paper.

C A R I B B E A N E X A M I N A T I O N S C O U N C I L

**REPORT ON CANDIDATES' WORK IN THE
CARIBBEAN SECONDARY EDUCATION CERTIFICATE® EXAMINATION**

MAY/JUNE 2014

**GEOGRAPHY
GENERAL PROFICIENCY EXAMINATION**

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GENERAL COMMENTS

This year 12,538 candidates sat the CSEC Geography examination, compared with 12,684 in 2013. Approximately four per cent of the candidates earned Grade 1, while 67 per cent earned acceptable grades, Grades I–III, similar to those in 2013.

Too many candidates did not respond appropriately to command words such as compare, explain and describe, and lost marks as a result. In describing items, more elaboration was needed. In comparing, the same elements or characteristics should have been examined for each area and similarities or differences clearly identified. There is a need for more practice in map-reading and in drawing sketch maps and diagrams. In map-reading, candidates demonstrated a lack of understanding of some basic concepts: scale, relief and drainage, calculating a gradient, and drawing a cross section. Diagrams and sketch maps were often scrappy but there were some that were neat, accurate and respected the conventions for drawing maps and diagrams. Most candidates gave a title to their diagrams and sketch maps – a welcome improvement.

As in previous years, many candidates, in Papers 031 (School-Based Assessment) and 032 (Alternative to School-Based Assessment), displayed an inability to conduct geographical field research and in Paper 031, in particular, to write independent reports. There were too many non-geographical studies and use of inappropriate techniques which when added to the issue of plagiarism indicate that the field projects are not being used to help the candidates gain mastery of topics in the syllabus. In Paper 032, it was evident that many candidates had no experience either in field research or in preparing and illustrating a report, and therefore were challenged by a paper testing such skills.

There are still many candidates earning Grade VI, a grade which indicates a very limited knowledge and understanding of the content and concepts tested. Further, many in this group submitted virtually blank scripts. This suggests that these candidates were not ready to write this examination. Teachers are encouraged to ensure that candidates who are entered for the examination are adequately prepared.

DETAILED COMMENTS

Paper 01

This paper consisted of sixty multiple-choice questions which assessed objectives across all sections of the syllabus. The performance was satisfactory. The mean was 63 per cent compared to 60 per cent in 2013. Candidates performed best on questions focusing on Human-Environment Systems — the water cycle, types of pollution, coral reef destruction, climate change and global warming. However, their performance on natural systems — landforms, formation of river valleys and volcanic features was below the required standard.

Paper 02 – Structured Response

This paper comprised ten structured response questions, the first of which was compulsory and tested practical skills. The other nine questions tested Natural systems, Human systems, and Human-Environment Systems — three questions on each system. Candidates were required to answer one of the three questions based on each System.

Section A: Map-reading (Compulsory)

Question 1

This compulsory question was not well done. About 1 per cent of the candidates earned over 20 marks, while the mean mark was 7 out of a possible 28. This performance is consistent with the pattern set over the years. Generally, only candidates who earned a Grade I or Grade II scored more than 14 marks.

Part (a) tested candidates' ability to measure the length of the road and was well done with over 75 per cent giving the correct response. However, candidates lost marks by their inability to give the correct unit. It is

clear that the concept of distance was not understood by some who gave their answers in centimetres and metres.

Part (b) required candidates to give the compass direction and over 90 per cent gave the correct answer. Most of the wrong responses were from candidates who gave the bearing instead of compass direction.

Part (c) required candidates to give the scale of a sketch map at half the original scale. Less than 10 per cent gave the correct response. It was evident that the majority of candidates were not familiar with the concept of reducing the scale. Candidates seemed not to understand that when the scale is reduced, any distance on the map represents a longer distance on the ground. Consequently, at half the scale, a kilometre would be shown in half the original distance on the line scale. Similarly, as a ratio, the scale is a fraction and thus the reduced scale can be calculated – half of 1/10 000 is 1/20 000 ($1/2 \times 1/10\ 000$). Many candidates did not understand that one unit on the map would represent more units on the ground at the smaller scale because it is a smaller fraction of the real distance and gave 1:5 000 as the answer.

Part (d) (i) tested candidates' ability to read the key and name a man-made feature at a given grid reference. Only 35 per cent gave the correct response. The others misread the key and gave 'reservoir' instead of 'tank'.

Part (d) (ii) had an error. This question required candidates to name a feature which was not at the reference point given. Approximately 25 per cent of candidates omitted this part of the question. However, all candidates who attempted Question 1 were credited the one mark for this part because of the error.

Part (e) required candidates to calculate a gradient and approximately 15 per cent obtained full marks. Most candidates were able to state the correct formula but used incorrect values for distance and height although they were told to calculate the gradient between the coast and the 80-metre contour.

Part (f) was challenging to most candidates. It required them to complete a cross section and, although the contour heights were provided in the insert, only 10 per cent obtained the maximum five marks. Seventy per cent of the candidates were able to give an appropriate title, however, 50 per cent failed to accurately label the area of scrub vegetation. Some did not provide a key for the shading used and had no label while others indicated a point instead of showing the extent of the area. About 50 per cent did not complete the cross section using the contour points given but instead extended the given line as a straight line to the arrow for Haymann's factory on the perimeter.

Part (g) (i) required candidates to list four drainage features from the prescribed area on the map. Most candidates listed all the drainage patterns that they knew, ignoring map evidence. Others listed all the drainage features found in the key, for example, well, borehole, mangrove. It is evident that the candidates did not understand the concept of drainage features. Appropriate answers indicated the direction of flow, the quality of the drainage, the pattern of the streams, the number of streams, and the presence of surface and disappearing streams.

Part (g) (ii) required candidates to list four relief features in a prescribed area on the map. It seemed that the candidates did not understand the concept of relief and simply described unrelated features on the map, for example, cultivation, settlement, and roads. Less than 10 per cent gave correct responses. Candidates needed to recognize landforms showing steep slopes, escarpments, depressions, narrow gullies, terraces, and spurs.

In Part (h), candidates were required to explain the distribution of trees and cultivation. Seventy-five per cent of candidates were able to describe the location but were unable to give reasons for their distribution. It was evident that the relationships affecting distribution were not understood. Less than 10 per cent of the candidates scored the maximum 6 marks allotted to this section. Most candidates simply said where the trees and cultivation were present and where they were absent. However, they were expected to give the reasons why they were distributed in that way using evidence from the map. They were expected to notice areas of cultivation on flat or gently sloping land with access to roads for transport and to streams for water, and the trees on escarpments and in the narrow gullies which could not be cultivated because of their steepness.

Recommendations

1. Map reading should be integrated as much as possible in lessons, even using atlas maps, to teach basic skills and associations.
2. The responses seemed to suggest that candidates were deficient in practical skills, for example, measuring direction, measuring distances, calculating gradient and drawing cross section. Students need to practise these skills on a regular basis. Research has shown that learning is enhanced through revision and practice. This applies to map-reading skills.

Section B: Natural Systems

Question 2

Question 2 was attempted by 62 per cent of the candidates and although a popular question, only 25 per cent produced satisfactory responses. The mean mark was 8 out of the possible 24. The question tested the candidate's ability to draw a labelled diagram depicting convergent plate boundaries, their knowledge of the processes of weathering and mass wasting, as well as, the processes leading to the formation of volcanoes and earthquakes (as these relate to the theory of plate tectonics).

Part (a) was not well done. It required candidates to draw a diagram depicting folds, a volcano and the subduction zone at a convergent plate boundary. A common error noted was that candidates placed the volcano on the oceanic plate with folds in the interior of the plates. Some candidates drew a series of individual diagrams instead of one diagram to depict the features. Candidates need to pay more attention to details in drawing labelled diagrams. Candidates were expected to draw diagrams with clearly identifiable boundary, and with folds, volcano and subduction zone clearly labelled.

Part (b) (i) tested candidates' knowledge of weathering and mass wasting. Many candidates were unable to define these terms correctly. Several did not indicate that in the weathering processes, no movement is involved. Often, the role of gravity in the process of mass wasting was not stated. Many candidates saw mass wasting as relating only to the movement of soil and not of weathered material.

Part (b) (ii) required candidates to describe what happens when either a landslide or soil creep occurs. This part of the question was answered best. Examples of expected responses include the following points:

A landslide is a sudden and rapid movement of large masses of weathered material along a steep slope under the influence of gravity. It is accelerated by the presence of water. As it moves it collects or destroys materials in its path. Soil, rocks and vegetation accumulate at the base of the slope. The original position of the weathered material is indicated by a scar.

A soil creep is a slow, continuous, movement of soil down slopes under the influence of gravity. Terracettes, roughly parallel to the contours, form across the slope. Trees and utility poles are tilted and bent downwards. Fences and walls move and may break. Soil accumulates behind walls and at the base of the slope. It is accelerated by the presence of water.

In Part (c), candidates were asked to explain how volcanoes and earthquakes occur using the theory of plate tectonics. Instead, many discussed the hazardous nature of earthquakes and volcanoes. Many of those candidates who attempted to explain the formation of volcanoes, failed to relate the process to plate tectonics.

A good answer identified volcanoes being created at divergent and convergent plate boundaries. The claim that, at convergent plate boundaries, melting of the denser oceanic plate at the subduction zones occurs with magma being forced to the surface through fissures was accepted on this occasion. Candidates need to know that RECENT research has changed that view. Volcanoes formed at convergent plate boundaries have explosive eruptions and because of the high silica content and viscosity of the magma, they form steep cones. Few candidates identified the volcanoes formed at 'hot spots' and the role of plate tectonics in their formation.

Most candidates were able to place the formation of earthquakes at transform margins but few addressed the other types of plate margins. Candidates noted that earthquakes occurred at plate margins where the movement of the plates "rubbed against" each other. Few were able to expand beyond this point. They should have said that when the plates get stuck at their margins, pressure builds up because the rest of the plate continues to move and the sudden release of the pressure creates the earthquake. Very few mentioned that the movement of magma also creates earthquakes.

Question 3

This question tested candidates' knowledge and understanding of river processes, floodplain landforms and the formation of specific coastal features. Most candidates scored 10 or more of the maximum 24 marks. The mean mark was 9.

Part (a) was well done, but some candidates failed to earn any marks because they did not indicate which of the letters on the diagram matched their responses. Candidates needed to recognize that their answer formed a "key" to the diagram and that they should have provided adequate details. The bluffs, the landforms marking the boundary of the floodplain, were not well known.

Acceptable responses:

- (a) (i) *Section of the river represented by the diagram: Flood plain or plain stage or lower course.*
- (a) (ii) *Labelled features: A — levees, B — oxbow lake, C — meander, D — River cliffs or line of bluffs*

In Part (b) (i), the majority of candidates were able to name two features produced by river erosion.

Some acceptable responses:

Valleys, rapids, waterfalls, gorges, oxbow lakes, river cliffs, meanders, plunge pools, pot holes, and interlocking spurs.

In Part (b) (ii), candidates were able to identify and outline two of the processes by which rivers erode their channels (hydraulic action, abrasion and corrosion). However, some candidates did not recognise that the question focused on the river's channel and that as a result, attrition was an unacceptable response.

Part (c) focused on the formation of coastal features. There was a high percentage of good responses with candidates earning 9 or more of the 12 marks. The majority of candidates explained the formation of the features adequately; however, there were some generalised responses or careless answers which restricted the marks candidates could earn. In particular, some gave excellent responses explaining the formation of caves in limestone areas instead of formation **by wave action**, thus failing to earn marks for that answer.

Some acceptable responses:

Wave erosion is dominant along coastlines where the water is fairly deep and onshore winds produce destructive waves.

Cave —A cave is an erosional feature. Wave action between high tide and low tide is more effective at a line of weakness in resistant rocks. It is eroded by hydraulic action or pressure, abrasion, and cavitation until an indentation is formed on the rock face. This is a notch. Prolonged erosion enlarges the notch to form a cave.

Beach — A beach is a depositional feature usually an accumulation of sand or shingle between high and low tide. It forms when constructive waves deposit materials on the coast. Most beaches form in bays where the water is shallow and waves break before reaching the shoreline. The forward movement of the waves or the swash carries material up the beach and the material is not removed because the backwash is weak. On a beach, the finer material is near the water's edge as they are carried down by the backwash, gravitational movement of the water.

Question 4

This question tested the candidates' knowledge and understanding of weather systems in the Caribbean as well as characteristics of the vegetation found in either tropical rainforest or tropical grasslands. There was a low response (6 per cent) and the question was very poorly done. Many candidates did not attempt all parts of the question. The mean mark was 4.

Part (a) required candidates to shade and state the name of one area of Tropical Rainforest (Amazon, Zaire and Indonesia) and one of Tropical Grassland (Llanos, Campos, African, Northern Australian) using the world map provided. This was poorly done as the majority of candidates only had a vague idea of the geographic location. Hence, they were unable to shade the specific areas on the map to match the two regions. In a few cases, they knew the correct names but shaded the wrong areas and thus could not earn the marks.

In Part (b), candidates were asked to describe the weather associated with any two Caribbean weather systems. The concept of a weather system was generally misinterpreted and the majority of candidates wrote about the weather (for example, weather in Guyana) instead of the weather systems (hurricanes, cold fronts, easterly waves, ITCZ and anticyclones). Others focused on how the systems were formed rather than on the winds, rainfall, temperature, pressure and clouds associated with the systems (before, during and after, as appropriate where relevant).

Part (c) had the best responses. The candidates who understood the question were able to earn 7 or more of the 12 marks. Many did not gain full marks because they were unable to properly link the impact of the climate to the particular characteristic selected. Candidates were expected to name four characteristics and then explain how each has been influenced by the climate (for example, life form – trees or shrubs or grasses; seasonality – evergreen or deciduous or annual; heights; stratification – layers or even heights; variety of species; depth of roots).

Some candidates misunderstood the question and attempted to compare the two regions. It seemed that candidates were not adequately prepared for these topics.

Section C: Human Systems

Question 5

This was a popular question, attempted by about 55 per cent of the candidates. The question tested the candidates' knowledge and understanding of the causes of urbanization and urban growth and there were satisfactory results. The mean mark was the highest in Sections A, B and C.

In Part (a), the responses were generally good. Approximately 75 per cent of the candidates were able to answer the questions which required them to interpret data in a table.

Correct responses:

- (a) (i) *Cuba*, (ii) *Trinidad and Tobago*, (iii) *St Kitts and Nevis or St. Vincent and the Grenadines*.
- (iv) *Cuba*.

Part (b) (i) was poorly done. Few candidates were able to identify two ways by which the population in cities can increase. While some candidates recognized the role of migration, most candidates failed to qualify it by stating rural to urban migration or even immigration. Others made reference of high birth rates without any mention of death rates. The answer required two of natural increase, net migration and reclassification of settlements.

Part (b) (ii) was fairly well done. Many candidates were able to list or identify correctly three measures to reduce urbanization. Weaker candidates merely stated what was lacking in rural areas and did not develop the points adequately. Some candidates showed a lack of understanding of the concepts/terms 'rural' and 'urban'. Other candidates failed to mention the measures necessary to develop rural areas, therefore reducing urbanization in the Caribbean. Too many candidates wrote about controlling urbanization and cited the development of new towns while the question asked about reducing urbanization. Building new towns would not be a strategy to reduce urbanization. Some of the answers seemed to be the reproduction of notes learnt by rote. The measures expected include:

- *Decentralization of developments where government encourages investors to locate their business outside of the urban areas housing schemes in rural areas.*
- *Land use zoning where in some countries, laws are enacted to protect farm or woodland areas from other land use.*
- *Improvement in agricultural practices and marketing of products which encourages rural people to remain since they can make a living from agriculture.*
- *Improvement in infrastructural development such as utilities, roads in rural areas which facilitate commuting between rural and urban areas. Assistance is provided to farmers, for example, fertilizers.*
- *Provision of adequate social services such as health, recreation, care, schools, in rural areas thus reducing need for residents to migrate to larger centres.*
- *Provision of land to farmers, for example, land lease of government owned land to farmers.*

Part (c) was fairly well done by most candidates. Candidates correctly identified four reasons for the movement of rural residents to cities. However, some candidates gave limited explanations and were therefore unable to earn full marks. Some of the better answers included appropriate examples. Some candidates separated factors - giving separate elements, for example, infrastructure (utilities) was separated into water, electricity and roads; social service was separated into education, health, transport, etc. Credit was only given for the category, with the type of infrastructure and types of social services as examples. Many candidates incorrectly re-stated the answers given in Part (b) (ii) for reducing urbanization.

Question 6

This question tested candidates' knowledge and understanding of primary and tertiary economic activities in the Caribbean. Approximately 20 per cent of the candidates attempted this question. Only a small proportion of the candidates performed well. The average mark was 10.

In Part (a), candidates were required to interpret a table and this was successfully done by most candidates. However, many misread the key and answered Part (iv) incorrectly.

Correct responses:

- (i) Barbados (ii) Dominica (iii) 25 per cent, (iv) 61 or 62 per cent.

For Part (b) (i), although very few candidates adequately defined the term ‘tertiary activities’, most candidates were able to give appropriate examples. Tertiary activities are economic activities that provide personal and professional services. The focus is on serving people in any way. Tertiary activities also provide a link between customers, and primary and secondary activities through wholesaling, retailing, banking and transport.

In Part (b) (ii), candidates were asked to describe three benefits of the tourist industry to the Caribbean. While most candidates performed well on this section, many focused on the fact that tourists advertised the region but failed to state how this benefited the region. Candidates were expected to highlight the fact that tourism creates jobs, earns foreign exchange, contributes significantly to the government’s revenue, creates linkages with other sectors, develops infrastructure and promotes culture.

In Part (c) (i), candidates were asked explain two ways that mining, forestry or fishing contributed to economic development. Generally, the candidates who choose mining had better responses. However, it appears that candidates were not well prepared for this topic. Many of the candidates who chose fishing and forestry highlighted the social and environmental benefits. The better candidates were able to comment on the production of raw materials for other industries, earning of foreign exchange, job creation and economic diversification. More importantly, they were able to show how they contributed to economic development.

The responses to Part (c) (ii) were generally weak. Once again the candidates seemed unprepared for this question. They were unable to explain two challenges facing the garment industry or the food processing industry in the Caribbean. Some of the challenges facing the garment industry are the increasing cost of labour, which has resulted in MNC’s moving to cheaper locations, increased competition due to trade liberalisation, high cost of electricity and the small size of the factories. Similarly, some of the challenges facing the food processing industry include the dependence on imported raw materials, high cost of equipment, unreliable supply of fruits and vegetables, low quality products and competition from foreign producers.

Question 7

This was a very low response question with only about four per cent of the candidates attempting it. While candidates performed satisfactorily in Parts (a) and (b), they experienced difficulty with Part (c).

Part (a) required the use of data in a table on sugar production. Parts (i) and (ii) were well done. However Part (iii), requiring the calculation of the percentage change, was poorly done and quite often even when candidates calculated the percentage change, they forgot to state whether the change was a negative or a positive one. Since candidates are allowed to use calculators, the challenge in performing the calculation may be in understanding the term ‘percentage change’.

Correct responses:

(i) Cuba, (ii) 25 000 tonnes, (iii) Increase of 90 or 91 per cent.

Part (b) (i) was well known and done. About 75 per cent of the candidates were able to adequately define the term ‘peasant farming’. Peasant farming involves the cultivation of crops and the rearing of animals primarily for subsistence and local markets using mainly family labour on small holdings.

In Part (b) (ii), candidates had no difficulty listing two ways that peasant farmers market their goods. In a few cases, candidates were uncertain about the meaning of the word ‘market’ as a verb and the phrase ‘market their produce’.

The ways in which peasant farmers market their produce include selling

- *to sugar factories*
- *to marketing boards*
- *directly to the hotels and supermarkets*
- *individuals by the roadside*
- *vendors in vans who visit their homes or farms to purchase their produce*
- *individuals at local markets.*

For Part (b) (iii), candidates were required to describe two characteristics of large scale arable farming in the Caribbean. Many candidates performed fairly well. However, several lost marks because they listed characteristics and gave no description. Thus, where candidates stated that the farms were very large, they were expected to add ‘over 200 hectares’ to earn an additional mark. Candidates must pay close attention to the command words in the question. Some of the common characteristics which candidates failed to develop were modern technology and the amount of machinery used.

Part (c) had some good responses but the majority of the candidates did not give suitable comparisons. Instead of using the headings given, the candidates discussed each area separately and did not compare the information for the two regions. Better answers came from the candidates who used tables to compare the two areas under the different headings and so remained focused on the topic they were comparing.

The part on mechanization was well done with candidates scoring the most marks on this part. Candidates were also able to identify challenges facing commercial arable farming in both areas, such as weather conditions and pests. Generally, these two headings (mechanization and challenges) were well known with several candidates producing exemplary answers. However, only a few gained marks on diversification. Generally, it seems that ‘diversification’ was not understood.

Acceptable responses:

- *In the Caribbean, diversification include the introduction of animal production into arable farms, as well as tree crops and non-traditional crops, for example, vegetable and fruits.*
- *In the Canadian Prairies, diversification include mixed farming with crop rotation and oil seed; as well as other crops such as oats, barley and sunflower. There is also dairying near urban areas.*

Section D: Human – Environment System

The responses in this section earned the highest mean marks. Most candidates had their best answer in this section.

Question 8

This was a low response question. It was attempted by 18 per cent of the candidates. The question tested the candidates' knowledge of the impacts of natural disasters on Caribbean territories and their understanding of measures needed to protect coral reefs and to reduce the emission of greenhouse gases.

The performance of most candidates was satisfactory.

Part (a) required a sketch map of any Caribbean territory and was not well done. This suggests that many candidates do not practise the skills of drawing sketch maps. Students should practise using geometrical shapes to provide a base for drawing a sketch map of any territory or even a continent and then develop the outline — aiming to be able to do so in about five seconds. Candidates are expected to provide a good recognizable shape with title and key/labels.

Part (b) was answered satisfactorily as candidates described the impact of a chosen disaster. However, some candidates ignored the term 'named Caribbean territory' in the question and were penalized.

Part (c) produced a wide range of marks. The better candidates read the question carefully and took note of the key words in the question, "how...any TWO measures can reduce". These candidates identified the measures and developed each in separate sections.

Part (c) (i) dealt with coral reef degradation and candidates were expected to explain how measures such as coastal management, public education, coastal land use zoning and laws could reduce degradation. Many candidates just gave a list of the causes and effects of the degradation of coral reefs.

Acceptable responses include the following points:

- *Coastal management focusing on controlling sedimentation and disposal of sewage and industrial effluent which would destroy the habitat of live corals.*
- *Public awareness campaigns targeting locals and visitors and reinforcing the importance of healthy reef ecosystems. This reduces trampling, destroying live corals and sedimentation of water.*
- *Laws enacted to reduce marine pollution and the breakage of corals, and restrict anchoring of boats in coral beds with well-publicized severe penalties which are strictly enforced.*
- *Creating marine reserves where the use of the area is regulated through monitoring by the environmental agencies. Also, coastal zoning with designated areas for different uses.*
- *Improved monitoring of the marine environment in order to reduce illegal activities such as sand mining, walking on coral reefs, and improper fishing techniques.*

Part (c) (ii) focused on measures to reduce the emission of greenhouse gases. Weaker candidates confused 'greenhouse gases' with 'greenhouses in farming' and dealt with the causes and effects of the emission of greenhouse gases. They did not adequately address the term 'measures to reduce the emission' in the question. Thus candidates were expected to write about alternative energy, using more efficient machinery, discouraging the use of private transport and older cars and saving energy. Planting trees was not an acceptable answer as this does not reduce the emission of greenhouse gases.

Question 9

This was the most popular optional question in this examination. It had nearly as high a response as the compulsory question attempted by 80 per cent of the candidates. It had the best response with a mean mark of 14. The candidates were required to read and interpret data from a bar graph, give definitions of both air pollution and water pollution, and explain how tourism development contributes to the destruction of coral reefs in the Caribbean. It also required candidates to explain consequences of deforestation in the Caribbean and the possible consequences of global warming in the Caribbean. Its popularity may be linked to the fact that both of the other questions in Section D required candidates to draw a sketch map which seems to present a challenge to many.

Part (a) (i) to (iv) tested the candidates' interpretation of a bar graph showing the percentage of forest cover in the Caribbean. Most candidates scored full marks on these parts.

Correct responses:

(i) Anguilla, Guyana, Suriname; (ii) Cuba, (iii) Aruba, Barbados, Haiti, Netherland Antilles; 15 or 16 per cent.

The responses to Part (b) (i) were unsatisfactory. Most candidates had difficulty defining air pollution and water pollution. They could have an appropriate synonym such as contamination and include examples of pollutants. Many responses did not state that pollution can be caused by man's activities or by nature.

Some suitable definitions are as follows:

1. *Air pollution refers to the contamination of the air by pollutants such as carbon monoxide, dust and smoke.*
2. *Water pollution refers to the contamination of water bodies, for example, rivers/lakes by pollutants such as raw sewage, garbage, or runoff from farms.*

About fifty percent of the students scored more than 50 per cent of the marks allotted in this section.

In Part (b) (ii), candidates were tested on ways in which tourism development contributes to coral reef destruction. About eighty per cent of the candidates wrote appropriate answers for this section. A small percentage of candidates 'listed' instead of 'described' how tourism contributes to coral reef destruction.

Acceptable responses include:

- *Clearing of land for the construction of hotels and roads has resulted in soil erosion and sedimentation of sea water.*
- *Improper disposal of organic waste from hotels causes eutrophication/reduces oxygen and causes the death of corals.*
- *Collecting of specimens for souvenirs. When tourists visit reefs, they sometimes break off pieces of corals, craft vendor collect coral for making souvenirs.*
- *Berthing of boats — boats anchor on reefs to allow for scuba diving and viewing — the anchor breaks off coral reefs. Oil spills destroy corals.*
- *Unmonitored visits to coral reefs, walking on corals, diving and damaging reefs.*

In Part (c) (i), some candidates did not understand the concept of consequences and instead they wrote on the causes of deforestation. Those candidates who identified the consequences of deforestation failed to fully explain how the consequences occurred. About fifty percent of the responses scored full marks for this part.

Consequences of deforestation include:

- *Loss of habitat — Certain animals depend on specific varieties of plants for survival. When the ecosystem is destroyed, several species become endangered in the region, for example, parrots, snakes and zandoli (lizard) in Saint Lucia.*
- *Landslides — Tree roots which normally bind the soil are absent the unstable soil move downslope readily. The material may block roads, dam rivers causing flooding and destroy crops, animals and buildings.*
- *Water shortages — Deforestation has been linked to drought in the Caribbean. During dry spells, forests remain moist for long periods, allowing the slow release of water into rivers and streams. Without forest cover, less water is stored and rivers and water dry up much more quickly leading to water shortages.*
- *Global warming — Large forests act as carbon sinks absorbing carbon dioxide. Removing or cutting down the trees results in more CO₂ in the atmosphere. Since CO₂ is a greenhouse gas, more CO₂ in the atmosphere means increased global temperature.*

Part (c) (ii), focused on the possible consequences of global warming in the Caribbean. This part proved to be the most difficult for most of the candidates. Majority of the candidates wrote extensively on the causes of global warming instead of the possible consequences of global warming in the Caribbean.

Consequences of global warming include:

- *Rising sea levels — This will cause floods in low-lying areas. This will cover beaches, coastal vegetation and settlements resulting in costly coastal protection measures.*
- *Bleaching of corals — Higher temperatures mean that warming of the Caribbean sea will cause 'bleaching' and death of coral reefs which are very important to the fishing and tourism industries. Coral bleaching is affecting Belize's barrier reef. Algae and other marine animals lose their habitat and there is less food for large animals in the food chain. This also results in the migration of fish.*
- *Stronger hurricanes — As oceans get warmer, storms could become more violent and even more frequent. Stronger hurricanes are likely to cause greater damage to the people and economy of the region.*

Question 10

This was the least popular question. Less than one per cent of the candidates attempted this question. It tested the candidates' ability to draw a sketch map, identify sources of greenhouse gases, state the causes of marine pollution and the measures to be taken to reduce it. The candidates were also asked to explain the measures to be taken to alleviate the effects of natural disasters in the Caribbean. At least 50 per cent of the candidates scored 12 of the 24 marks.

In Part (a), many candidates were not familiar with the maps of the Caribbean territories. About 15 per cent of the candidates did not attempt this part of the question. Approximately 30 per cent of the candidates misinterpreted the question and drew the map of the Caribbean and tried to locate Guyana and Suriname - the insert included Guyana and Suriname, and seemed to confuse the candidates; the title and North arrow were missing in many of the responses. Overall, the question was fairly done.

Part (b) was fairly well done by the candidates. However, Part (b) (i) asked for two sources of greenhouse gases and was misinterpreted as several candidates confused the gases with the sources of greenhouse gases. Of the three Parts, (b) (ii) was well done. Approximately 80 per cent of the candidates answered this part correctly giving two causes of marine pollution in the Caribbean. For Part (b) (iii), the candidates were able to identify the measures to reduce water pollution along the coast but were unable to develop the measures adequately.

The causes of marine pollution in the Caribbean include:

- (i)
 - *The burning of fossil fuel in factories/power plants*
 - *The burning of vegetation/garbage*
 - *The use of refrigerants*
 - *Exhaust from motor vehicles*
 - *The rearing of animals increases the methane content*
 - *Aerosols*
 - *Water vapour*
- (ii)
 - *Disposal of untreated sewage by residents in coastal areas*
 - *Dumping of chemical by industries in coastal areas*
 - *Waste from rivers that empty into the sea*
 - *Dumping of household waste into the sea*
 - *Rainwater washes fertilizers, herbicides and pesticides into the harbour via the rivers*
 - *Oil spills*

- (iii)
- *Building a plant to treat sewage will prevent raw sewage from entering the sea*
 - *Public awareness campaigns to encourage people to avoid dumping garbage in waterways*
 - *Prevent ships from dumping waste in harbour by providing facilities for disposal*
 - *Legislation to prevent industries from dumping chemical waste into water courses and coastal areas.*

Part (c) had the weakest responses as the candidates were able to identify the measures but had challenges explaining how they reduced or alleviated the effects of a natural disaster. It seemed that they did not understand the term ‘and / or’ in the question. Approximately 20 per cent of the candidates who attempted this question were able to answer this part – adequately explaining the need for building codes, evacuation drills and shelters.

Recommendations

- Teachers should ensure that candidates familiarize themselves with the Caribbean territories and acquire the skills of drawing sketch maps of the Caribbean countries.
- Candidates need to pay attention to key terms and details.
- Candidates need to develop the skills of answering questions which require explanation. They should be able to elaborate on single statements provided and respond logically.
- Candidates should practise drawing relevant diagrams, especially of features in the Natural Systems.
- Candidates should know what type of response is required by terms such as: list, state, describe, outline, explain and account for.
- Simple map-reading skills need to be practised frequently in order to be mastered.
- Estimating distances of 10, 20, 100, and 400 metres, even as a game, to build a concept of distances would be helpful.
- Attention should be given to the objectives on climates, vegetation and soils since questions on these are always poorly done. Models of the interaction in the biomes would help candidates understand and remember the characteristics and the interactions.
- In studying the Caribbean weather systems, the general circulation of the atmosphere in the Caribbean area using the Hadley Cells will provide a framework for the occurrence, distribution and seasonality of the systems, and help candidates understand them.

Paper 031 – School-Based Assessment

GENERAL COMMENTS

There is need for greater guidance to students in selecting topics for study and on all aspects of the project. While students may do a common project they must write individual reports even though they have the same data.

Plagiarism in reports is a problem which ought to be addressed by teachers. As stated in the syllabus, teachers should not grade reports containing plagiarized material or reports which are the product of joint authorship or copied, but should require such candidates to do over the report purged of the offending material.

Comments on the body of the Field Report

Table of Contents

Despite the simplicity of this task, too many candidates are losing this mark. Teachers must ensure that students consecutively number all pages of the report using the section headings that are outlined in the syllabus.

Aim of Study

There were still too many broad aims that did not lend themselves to adequate data collection. The aim should include a delimited area of study that is manageable. The name of the territory should be included in the aim. The aim should be based on a topic or a specific objective defined in the syllabus. Teenage pregnancy, class sizes and road quality are NOT suitable topics for study. The aim must be geographical.

A good example of an aim was included in the 2013 report and restated: *To examine and account for the distribution of litter in the streets of Town/suburb (named) in country (named) on Saturday (date)*. A vague, non-geographical aim is 'To investigate biodiversity in (named territory)'. Candidates are encouraged to use verbs such as *assess, examine, evaluate, measure, analyse* and *discuss* in their aims or to pose a question to test an idea. This will help focus the work in the field. To ensure that the topic is geographical, apart from being on the CSEC syllabus, the spatial distribution of features or characteristics should be included in the aim.

Location of Study

Increased emphasis should be placed on the inclusion of map conventions. The territorial map should clearly show the name and location of the study area. The site map is still an area of concern. It is not just an enlarged parish map. It should include details of the site and its immediate environs and it should be clearly labelled. If electronically generated maps are used they should be manipulated or altered by the student to make them relevant to the study.

Methodology

There was an over-reliance on questionnaires. In many cases, they were used even when they were not appropriate for the type of data required to generate information to answer the aim(s). Many studies, which used questionnaires, merely generated information that was really the perception of the respondents. (For example, what are the causes of deforestation in an area?) Methods MUST suit the aim(s).

When questionnaires are used as the main instrument of data collection, candidates should give the sampling details, for example, sample size and sampling method.

Presentation of Data

Candidates should use at least three types of appropriate illustrations. It is useful to note that line graphs should only be used to show change over time and pie-charts should not be used to show 100 per cent value. The reliance on secondary data must be reduced.

When photographs are used, labels must be inserted. All axes on graphs must be labelled and candidates should avoid using two different types of illustration to represent the same data.

All illustrations should be numbered, for example, Figure 1 and should be referred to in the text.

Quality of Data

Many candidates failed to obtain full marks for this area. It was apparent that several candidates did not do enough field work to meet the requirements of the aim. Candidates should ensure that the data they collect are relevant (answer the aim) and sufficient to draw reliable conclusions.

Analysis and Discussion

Many candidates just described the data presented without any analysis of patterns or trends. Some aims did not lend themselves to much analysis. Candidates should note that the analysis requires an explanation of the data. Where possible, candidates should indicate whether their study supports text book explanations, theories, or models.

Often there was a lack of integration – where the candidate failed to refer to the relevant illustrations. When the aim is poorly stated, the analysis is often poorly done.

Conclusion

Candidates must be reminded that the conclusion is a summary of the findings and answers the question or endorses the statement in the aim. Many candidates produced conclusions with new information – more suited to the analysis and discussion sections – and therefore could not be credited.

Communication of Information

Candidates are advised to review their studies paying attention to the correct use of the English language.

Generally, there was good use of appropriate geographical terms.

Bibliography

The candidate is expected to place at least two texts/sources in alphabetical order by author's surname. Many candidates were unable to do so. Teachers should ensure that candidates acquire this skill.

The list of resources in the syllabus uses the required style (the MLA style) and can be used as a model.

Paper 032 (Alternative to SBA)

GENERAL COMMENTS

This paper seeks to test the skills similar to those used in conducting a field study project and presenting the report. Candidates need to know these skills to do well. One hundred and eighty- seven candidates wrote the paper although nearly 300 were registered. The mean on this paper was 38 per cent, similar to that for 2013.

Question 1

Candidates were required to complete a sketch map by inserting selected features. Many of them experienced difficulty locating the features and omitted a key. Most also failed to draw the scale correctly.

Question 2

This question asked candidates to formulate an aim based on a given scenario. The responses were fairly done. Many candidates did not receive maximum marks due to poor expression. They could have used the scenario given and posed the question – *Are there differences in the wave action and beach profile before and after the hurricane season?*

Question 3

Part (a) required candidates to list six items on the data sheet about which information would be recorded. Most candidates misinterpreted and listed the instruments required to measure the features. Instead of using examples such as 'wave height' and 'location of study', many wrote, for example, measuring tape, questionnaire.

In Part (b), candidates were asked to describe how and when data would be collected. Most identified appropriate methods of data collection, for example, wave frequency and wave height. However, too many candidates suggested the inappropriate use of the questionnaire for this question. Most answered the 'when' section correctly.

Part (c) required candidates to identify a problem that they may encounter when conducting the study. Many of them included factors which the question specifically excluded, for example, weather.

Possible problems include:

- access to the beach
- water safety
- working alone

It should be noted that with reference to Questions 2 and 3, candidates misidentified this research as a weather study rather than a coastal one.

Question 4

In Part (a), candidates needed to complete a pie chart. Many of them omitted the year and country in the title. Many had inaccuracies in calculating the angles so the segments in the pie were inaccurate. The reliance on computer technology to make charts and diagrams seem to be impacting negatively on the skill to draw them manually. Despite having calculators, candidates had the wrong angles as candidates did not know how to calculate them.

In Part (b), candidates were asked to analyze the data in the table. Most simply compared the percentage between small and large farms. They were expected to look for patterns, similarities and differences in the effects, for example, drought affected the small farms more than the large farms but labour shortages which affected 65 per cent of the large farms had no affect on the small farms.

Question 5

Part (a) required candidates to state **how** data would be collected. While most candidates identified the instrument to be used, they failed to indicate that the data should be taken at the same time each day.

In Part (b), candidates were asked to construct a bar graph. This was satisfactorily done.

Part (c) required candidates to summarize the data in the table. The responses overall were satisfactory.

Six points summarising the data in Table 3:

- The wind direction on the Island varied over the month.
- The dominant wind direction was north easterly.
- The wind blew north easterly for 50 per cent of the time under observation.
- The wind direction was easterly for 33 per cent of the time.
- The wind blew south easterly for 17 per cent of the time.
- The least likely wind direction on the island is easterly.

Question 6

This question focused on the knowledge of the elements of a book that are to be given in a bibliography. The fifth element in the bibliography was requested of the candidates. This was poorly done. Many candidates had no idea that the missing element was the *city of publication*.

Generally, candidates need more guidance on the requirement for Paper 032 if they are to improve their performance. Candidates need to know how to conduct fieldwork and prepare a report in order to achieve higher scores on this paper.

C A R I B B E A N E X A M I N A T I O N S C O U N C I L

**REPORT ON CANDIDATES' WORK IN THE
CARIBBEAN SECONDARY EDUCATION CERTIFICATE® EXAMINATION**

MAY/JUNE 2015

**GEOGRAPHY
GENERAL PROFICIENCY EXAMINATION**

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GENERAL COMMENTS

This year approximately 12 000 candidates wrote all the required papers for the CSEC Geography examination, compared with 12 500 in 2014. Approximately 5 per cent of the candidates earned Grade I, and approximately 62 percent earned Grades I–III. In 2014, approximately 4 per cent of candidates earned Grade I and 67 per cent earned Grades I–III.

Performance on Paper 01 was satisfactory. In Paper 02, candidates demonstrated knowledge of general relationships but could/did not provide specific examples. This weakness was evident in each question, including cases where examples from the Caribbean or the topographic map were required. Candidates need to recognize that the central themes of Geography are spatial patterns, spatial relationships and interrelationships. They must know where what is being studied is found and the importance of the location. As stated in the rationale of the syllabus (page 1) *Spatial expression and map-reading skills are essential to a study of the subject*. Map-reading continues to be unsatisfactory with candidates finding it challenging to transfer items from the map to a grid. Performance on Section B — Natural Systems, was also unsatisfactory. The three weakest questions, after map-reading, were the three questions in this section. Performance in both Sections C and D was satisfactory but for the inability to identify or give examples.

Performance on the School-Based Assessment, Paper 031, was better this year but there were still some topics that were not related to the syllabus objectives and some which were not even geographical. Plagiarism was not as bad as in 2014 as teachers seem to have devoted more effort in addressing this issue. Paper 032, the Alternative to School-Based Assessment, had some good responses but many showed a lack of proper preparation.

DETAILED COMMENTS

Paper 01 – Multiple Choice

This paper consists of 60 multiple-choice questions assessing objectives across all parts of the syllabus. Performance was satisfactory. The mean was 61 per cent compared with 63 per cent in 2014. As in 2014, candidates did best on the questions testing the Human–Environment Systems while their performance on Natural Systems continue to fall below the required standard. Candidates experienced challenges with features and patterns in river valleys and channels, interpreting land forms through reading of contours, determining bearings and calculating time of places based on their longitude.

Paper 02 – Structured Response

This paper comprised ten structured response questions, the first of which was compulsory and tested map-reading skills. The other nine questions tested specific objectives in the Natural, Human and Human–Environment Systems. Candidates were required to answer one of the three questions based on each set. The answers to Questions 3 and 4, both on the Natural Systems, were unsatisfactory. The answers to Questions 2, 5 and 9 were weak. The other answers were of an acceptable standard. Question 7 (Human Systems) had the best performance followed closely by Questions 10 and 8, both assessing the Human-Environment Systems.

Section A – Map-reading (Compulsory)

Question 1

This question was poorly done. Few candidates earned more than 20 of the 28 marks. The mean mark was 8.

Part (a) tested candidates' ability to give the six-figure grid reference for a location. It was done fairly well. Over 75 per cent of candidates were able to state the correct answer while a further 15 per cent were able to correctly identify the grid square within which the feature was located but had the wrong fraction for the third and/or sixth figure.

Part (b) which tested candidates' ability to determine grid bearings was fairly well done with over 60 per cent of candidates giving the correct response. Answers given indicated that while a significant number of candidates knew how to obtain the bearing, many had difficulty reading the protractor with precision.

Part (c) required candidates to calculate the average gradient along a road. Candidates performed poorly on this question as less than 10 per cent obtained full marks. Many who attempted it failed to express their answer as a ratio. They did not know or understand how to use the formula. About 10 per cent of candidates used the correct horizontal distance in their calculation. Many used the straight line distance rather than the distance along the road as required.

Part (d) provided a grid on which candidates were required to insert various features taken from the map extract. Over 60 per cent of candidates were able to insert the river and the highest point. Many failed to shade all land over 600 m while about 50 per cent of candidates were unable to accurately locate a depression. Many candidates lost marks because they failed to label or provide a key for features placed on the grid.

Part (e) tested candidates' ability to identify economic activities on the map extract. Over 80 per cent of candidates were able to identify at least one type of economic activity.

Many candidates, however, gave named buildings rather than the economic activity. Others did not use the map evidence to answer the question.

Part (f) required candidates to state two features of the drainage in the area covered by the map. This question was not well done. Most candidates did not demonstrate an understanding of the concept of drainage. Many failed to use map evidence to answer the question. Features of the drainage which could have been stated included *the presence of disappearing and seasonal streams; swamps and ponds resulting in poor drainage east of Moneague; low drainage density; and dendritic drainage in the SE and SW areas of the map.*

Part (g) (i) required candidates to describe the distribution of settlements on the map. The term *distribution* was not understood by over 50 per cent of the candidates. The term *distribution* required candidates to say where people had settled in the area. Many incorrectly gave descriptions of settlement patterns. A good answer would have included the point that *most settlements were scattered and found where land was below 400 m (low) with few settlements being found in rugged areas to the west and south of the map extract.*

Part (g) (ii) required candidates to describe the form or type of settlements on the map extract. This section was done better than Part (g) (i). Most candidates were able to describe the linear pattern found on the map. Nucleated pattern was also identified by many candidates but descriptions were weak. More than 40 per cent of candidates who identified the nucleated settlement pattern spelt the word incorrectly. Over 60 per cent of candidates merely listed the forms of settlement without giving a description, as required.

Part (h) required candidates to explain, using examples, one relationship between the relief of the land on the map extract and each of the following: (i) farming (ii) natural vegetation and (iii) roads. Approximately 20 per cent of candidates did not attempt this question. Of those who attempted the question, over 50 per cent were able to describe the relationship but there was an absence of map evidence to support the relationship. It would seem that they knew the generalizations (perhaps from textbooks) but could not find the examples as proof on the map.

Section B – Natural Systems

Question 2

The question tested candidates' ability to identify plates, define geographical processes, their knowledge of plate boundaries and the physical weathering processes influenced by temperature. It was the most popular question in this section — attempted by 68 per cent of candidates. The mean mark was 10 out of a maximum 24.

In Part (a), candidates were required to label four tectonic plates among the Caribbean and its neighbouring plates. Few were able to identify all of the plates with weaker candidates not attempting this part of the question. In many instances types of plate margins, such as convergent or divergent, were the answers given.

Part (b) tested candidates' knowledge of geographical terms. Many described the process giving examples such as landslides and soil creep for mass wasting and physical and chemical weathering for weathering, instead of defining the terms. Key points which define the terms, such as *in situ* or *gravity* were omitted. Some examples of definitions expected were as follows:

Denudation – the laying bare or exposure of underlying rocks by the processes of weathering, transport and erosion.

Weathering – decomposition and disintegration of the rocks by the elements of weather. This takes place in situ.

Mass movement – movement of weathered rock debris or soil down a slope due to the influence of gravity, sometimes lubricated by water.

Erosion – the wearing away of the earth's surface by the action of wind, water or ice.

Part (c) required candidates to compare the movement, resulting features at transform and convergent plate boundaries, and give an example of each type of the two stated plate boundaries in the Caribbean. Some candidates did not refer to the Caribbean in their examples but gave Himalayas and Andes for convergent plate margins and San Andreas for transform plate boundaries. Some candidates described divergent plates.

A good answer noted the following:

At transform plate boundaries, plates slide past each other in opposite directions. The resulting features are transform faults which produce earthquakes. An example of this boundary is found between the North American and Caribbean plates. At convergent plate boundaries, two plates collide with each other, resulting in features such as volcanoes and earthquakes forming. This occurs when the oceanic plate subduct under the continental plate, as where the eastern boundary of the Caribbean plate meets with the South American plate.

Part (d) examined the role of temperature change and frost action in the destruction of rocks. Few candidates considered temperature change in contrasting locations such as deserts, mountainous areas

or areas with extreme climates. Most candidates focused on frost action, and where they attempted temperature change did not distinguish between the two processes.

A good answer identified the following:

In areas with a high diurnal temperature range, such as deserts, rocks can be destroyed due to the outer layers expanding during the heat of the day and contracting in the cool of the night. After repeated expansions and contractions, tiny cracks within outer layers of the rocks will enlarge and eventually peel off through the process of exfoliation. In areas that are extremely cold, frost action takes place. During the day, water settles in cracks in the rocks, and at night when temperatures fall below zero, the water freezes and expands, thus applying pressure on the cracks. Over repeated instances, the cracks widen and pieces of the rock break off.

Teachers should ensure that concepts are clearly understood so that students can better respond to this question. The use of maps and diagrams can be useful in understanding these concepts and processes.

Question 3

This question tested candidate's knowledge and understanding of the water cycle and river processes, meanders, levees and floodplains. It was not a popular question and attracted both the weak and strong candidates. Eighteen per cent of candidates attempted this question. The mean mark was 8 out of a maximum 24.

Part (a) was reasonably well done, but incorrect positioning of labels (rather than ignorance) was the reason why many candidates scored just 2 out of 4 marks. A few candidates interpreted the stimulus material showing the movement of water when it reaches the surface as folds and/or faults.

Part (b) was also reasonably well done. The majority of candidates was able to name the four ways a river erodes, but they often confused the definitions. For example, abrasion was incorrectly defined as 'the materials knocking against each other'; whilst attrition was defined as 'the materials digging out the bed'. Some candidates also identified the common and alternative names as separate responses, for example, corrosion and solution; corrosion and abrasion.

In Part (c), more knowledgeable candidates earned 4 out of 6 marks. Most candidates were able to identify elements of activity that one would expect to find in a meander's cross section, but they just did not give sufficient points to earn maximum marks. Some candidates described how a meander is formed as opposed to what happens in the cross section itself.

The following is an example of an expected response:

The channel of a meander is steep on the outer or concave bank due to the spiralling action of the water undercutting the bank. The overhanging feature is called a river cliff. On the inner bank, due to frictional drag the water moves slowly and deposition occurs. Thus this convex bank is shallow as the deposited materials form a slip off slope.

A well-labelled diagram would have earned full marks.

In Part (d), better prepared candidates also earned 4 out of 6 marks. They mentioned the general concept of the relationship between the formation of levees and floodplains, but many were unable to make sufficient points to score maximum marks. A few candidates wrote in reference to the formation of deltas and river braiding.

The following is an example of an expected response:

Both levees and floodplains are a result of flooding, when materials carried by the river are deposited on its banks. The coarser materials are deposited first on the banks and repeated action leads to raised ridges, called levees. The finer materials are spread further and form a large flat area on both sides of the river, called a floodplain.

Again, well labelled diagrams could have earned full marks.

Question 4

This question tested candidates' knowledge of the areas affected by tropical weather systems in the Caribbean, the weather associated with a tropical wave, the characteristics of an equatorial climate and the roles of climate and vegetation in the formation of soils in the equatorial areas. It was attempted by 14 per cent of candidates and was poorly done. The mean mark was 4 out of a maximum 24.

Part (a) was poorly done. Many candidates instead of giving four separate responses gave only one.

The correct responses were:

- 1 – Cold Fronts
- 2 – Anticyclones
- 3 – Hurricanes
- 4 – Tropical wave
- 5 – Intertropical Convergence Zone

Candidates should be familiar with the zones in the Caribbean which are affected by the weather systems and should be able to show them on a map.

Part (b) was reasonably well done. Most candidates were able to describe aspects of the weather associated with tropical waves (before, during, and after). However, they were unable to provide sufficient details, especially when they merged the instructions into one description of what happens while the wave passes over.

The following is an example of an expected response:

Before the tropical wave arrives, it is generally sunny with clear skies. When the wave arrives, the skies become overcast with cumulonimbus clouds and winds change from the northeast to the southeast; heavy rainfall and gusty winds are experienced. When the wave passes, there may be light rains as skies begin to clear up.

Part (c) was also fairly well done. Candidates were able to identify characteristics of rainfall and temperature of an equatorial climate, but often failed to give adequate details to earn full marks.

Part (d) was poorly done. Candidates, while having adequate knowledge of soils, climate and vegetation, were unable to clearly explain the roles of the climate and the vegetation in the formation of the soil in equatorial areas. Many candidates ignored the part played by chemical weathering.

The following is an example of an expected response:

The climate: This area experiences high temperatures and heavy rainfall all year which lead to chemical weathering of parent material and to high bacterial activity which causes rapid breakdown of plant litter. The constant rainfall leads to leaching resulting in a horizon low in calcium but rich in iron giving the soil a red colour. A hard pan may be formed in moist areas in the B horizon where the soils are mostly clay.

Vegetation: The abundance of plant cover protects the soil from erosion and keeps it moist which enhances chemical weathering and bacterial activity. The evergreen nature leads to the production of a thick layer of litter from leaf fall. This permits replacement of the humus which is leached away. There is a thin layer of humus which gives a darker colour to the top of the soil. The roots recycle the bases from the lower levels to maintain luxuriant growth.

Section C – Human Systems

Question 5

This was a popular question and was attempted by about 70 per cent of the candidates. It tested candidates' knowledge and understanding of population density, factors influencing population distribution in the Caribbean and also the characteristics and causes of urbanization in the Caribbean. The mean mark was 10 out of a maximum of 24.

In Part (a), candidates' responses were good. Approximately 95 per cent of them were able to answer the questions which required them to calculate and interpret data in a table.

Parts (b) (i) and (ii) were poorly done. Few candidates were able to define population density accurately and failed to recognize that population density referred to the number of people living in an area expressed per square kilometre/mile.

Stating two characteristics of urbanization proved quite difficult. Many candidates stated the problems rather than characteristics. The characteristics required in this section included the following:

- (i) *an increase in the proportion or percentage of people in a country living in towns and cities*
- (ii) *growth in the number of urban settlements*
- (iii) *change in the economic activities from primary to secondary to tertiary*
- (iv) *higher population densities*

The responses to Part (b) (iii) which required candidates to outline two causes of urbanization were satisfactory. Some candidates recognized the importance of rural–urban migration influencing urbanization but too often wrote on the problems in rural areas without stating clearly that these problems would cause people to move. Many candidates were also unfamiliar with other reasons such as *natural increase, reclassification of rural areas with the introduction of non-agricultural activities leading to these areas being reclassified as urban or the establishment of new towns or industrial parks/estates.*

Responses to Part (c) were satisfactory. Candidates correctly identified four factors that influenced population distribution in the Caribbean. However, too many gave limited explanations and no specific examples and therefore were unable to earn maximum marks. Too many candidates also misinterpreted *population distribution* with causes of rural–urban migration or external migration or urbanization and thus failed to explain the pattern of the population distributed in the Caribbean area. They focused on reasons for movement and not for settlement.

Examples given were general rather than specific to areas within a country as required.

The better responses included how the factor led to high/low population densities and, using specific examples, explained how population gravitated towards or away from the area(s).

Question 6

This question tested candidates' knowledge and understanding of primary, secondary and tertiary economic activities in the Caribbean, Singapore and/or Hong Kong. It was the least popular in this

section. Approximately 4 per cent of the candidates attempted this question. Only a small proportion performed well. The mean mark was 10.

In Part (a), candidates were required to use data to construct a pie chart. Many candidates did not use geometrical tools. A title for the diagram was frequently missing.

For Part (b) (i), many candidates were able to list the benefits of food processing or garment manufacturing industries. These included source of foreign exchange, use of local raw materials, *source of employment, import substitution and linkage with other industries*. However, many candidates failed to expand on the benefits listed in order to earn maximum marks.

For Part (b) (ii), many candidates did not make an acceptable comparison between characteristics of the chosen economic activity in the Caribbean with that of Singapore/Hong Kong. Candidates simply described characteristics of the garment/food industry in the Caribbean.

Part (c) asked students to explain two challenges facing tourism in the Caribbean. The majority of candidates did not give satisfactory responses. Many responses were limited to the causes of global warming and the destruction of coral reefs without any link between these factors and the challenge to the tourism industry. The few good responses were able to explain challenges such as the *global recession; competition from cheaper destinations; seasonality of tourism; rising fuel prices and the impact of natural disasters*.

Overall, the performance of candidates indicated that they were unfamiliar with the content tested in the question.

Question 7

Responses to this question were fairly good in Parts (a) and (b). However, candidates experienced some difficulty in understanding Part (c) (i). About 26 per cent of the candidates answered this question. It had the highest mean mark of 13 out of a maximum 24.

Part (a) required the use of data on banana production. Parts (a) (i) and (ii) were well done. However, for Part (a) (iii), a few candidates had correct working but experienced some problems rounding up the decimal 48.94.

Correct responses were

- (i) *Belize*
- (ii) *29 000 tonnes*
- (iii) *48.94/49 per cent*

Part (b) (i) was well done. Most candidates earned between 6 and 8 marks. About 85 per cent of the candidates were able to describe the characteristics of peasant farming in the Caribbean. The better candidates stated that *peasant farming involved the cultivation of crops and the rearing of animals primarily for subsistence and local markets, using mainly family labour on small holdings usually less than 5 acres*.

In Part (b) (ii), candidates had little difficulty stating the reasons for the importance of agriculture to the economy, for example, *agriculture provides jobs for the skilled and unskilled people in the Caribbean. Crops are sold to local and foreign markets resulting in foreign exchange for the economy*.

Candidates inaccurately answered Part (c) (i). Generally, they confused the factors of location with the challenges, that is, they gave several challenges encountered at the location of the industry instead of actually stating the reasons for siting the industry there. Several candidates also produced an answer relating to agriculture rather than forestry.

Of the three options, fishing was best answered following by mining and forestry respectively. Most candidates who opted for forestry referred to agriculture on forest conservation rather than forestry; they discussed soil type, fertility, etc. which were not needed here.

In this section dealing with the location of forest in Guyana, the better candidates stated the following:

Raw materials occupied 84 per cent surface and a large area of the land is forested with a wide variety of hardwood species on demand. There are commercial trees such as Greenheart, Mora, Purple Heart and Crabwood. The forest is accessible – the main lumbering areas are near rivers which are navigable, for example, Essequibo.

Mining – The quality and quantity of the raw material were the most important factors influencing the location of the mine. Without the presence of the raw material, no mining can take place. For example, in Jamaica, the raw material, bauxite, is found in the parishes of St Ann, Clarendon and Trelawny. In Trinidad and Tobago, oil deposits are found in the southern part of Trinidad and in the waters off the coasts.

Fishing – The most important factor influencing the location of the fishing industry is the presence of indented coastlines and bays with shallow waters and extensive continental shelf, forming a good breeding ground for fishes. Thus fish abound in these areas.

For Part (c) (ii), candidates generally understood the challenges facing these industries and this was reflected in the quality of the answers.

Some good responses included:

For Fishing – Overfishing, lack of cold storage facilities and competition

Forestry – Decline in demand, difficulty of extraction, deforestation and forest fires

Mining – Mining difficulties, fluctuations in world prices, competition from other products, for example, plastic, environmental concerns, high extraction and transport costs and decline in reserves.

Section D – Human-Environment Systems

Question 8

This question was attempted by 35 per cent of the candidates. The question tested candidate's knowledge of (i) location of the islands in the Eastern Caribbean, (ii) the impacts of hazards and (iii) how natural phenomena and human activities cause coral reef destruction.

The performance of most candidates was satisfactory except in Part (a) where performance was poor. The mean mark was 12 out of 24.

Part (a) required candidates to state the name of four labelled countries of the Lesser Antilles. This part was poorly done. This clearly shows that candidates did not have knowledge of the countries of the Lesser Antilles. The correct responses were:

P – Guadeloupe

Q – Dominica

R – Saint Lucia

S – St Vincent

T – Grenada

Some of the responses included Brazil, Guyana, Jamaica, Argentina, Cuba, Trinidad and Tobago as countries of the Lesser Antilles. Candidates are advised to study the map of the Caribbean, identify the countries and frequently practise naming them.

Part (b) was generally well done. Most candidates scored all the marks allocated for this part. Some candidates, however, ignored the instructions and wrote on the impacts of all three hazards instead of one as stipulated by the question. Some candidates listed the impacts when the instruction stated that they must describe, while others wrote on the precautionary measures instead of the impacts.

The better responses were:

- *Hurricanes cause flooding as a result of the heavy rainfalls. The flooding destroys roads and bridges.*
- *Volcanoes produce lahars during an eruption and this destroys vegetation and settlements in its path.*

Part (c) required candidates to explain how two natural phenomena and two human activities can cause coral reef destruction. Candidates' responses were fair. Most of them earned 50 per cent of the marks allocated for the section. Candidates performed better at the explanation of the human activities than the natural phenomena.

Some selected responses for natural phenomena were as follows:

- *Global warming results in the melting of the polar ice caps which leads to a rise in sea level. This causes an increase in the depth of the ocean and affects the growth of coral reefs because they thrive in shallow waters that are less than 70 meters deep.*
- *Hurricanes generate storm waves by the force of the strong winds. These waves break on the coral waves and cause them to break up thereby destroying them, for example, Hurricane Allen in 1980 destroyed much of Jamaica's coral reefs.*

Some expected responses for the human activities were:

- *Fishing – Coral reefs are destroyed by dynamite fishing. This method blasts the reefs in order to get the fishes and leads to the destruction of the reefs.*
- *The use of trap nets drag over the reefs causing them to disintegrate thereby destroying the reefs.*
- *Tourism – The market for coral jewellery has led to the quarrying of reefs and this has caused coral reef destruction over time. In addition, during snorkelling tourists walk on reefs or break pieces of the reefs for souvenirs, hence destroying the reefs.*

Question 9

Candidates did not do well on this question. It was the least popular in this section with 19 per cent of candidates attempting it. The mean mark was 9 of the maximum 24.

Part (a) required candidates to draw a sketch map of a Caribbean territory and identify by name an area where marine pollution is a problem. The sketch map drawn by most candidates was unsatisfactory. More practice is needed in drawing sketch maps of Caribbean territories as some sketch maps (shape/outline) were unrecognizable. Candidates misunderstood the term *marine*, as most candidates

shaded an area on land. In cases where candidates shaded the area correctly, they were unable to name the area accurately. Map elements such as North arrow, title, key, scale and border were not inserted in most cases. Proper and complete labelling needs to be emphasized in classes.

For Part b (i), candidates were able to identify the cause/s of marine pollution, but were unable to develop the points. Suitable examples included *sewerage, where poorly treated or untreated sewerage from businesses and homes is channeled into the harbour and natural waterways; solid and liquid waste, in which all the rivers, for example, from the Kingston metropolitan area flow into the harbour emptying large amounts of solid and liquid waste and industrial waste directly into the harbour*. There were some candidates who wrote about pollution in general (land, water, air and even noise) rather than focusing on marine pollution in the identified area.

In Part b (ii), candidates had a general idea of the concept air pollution, but they were unable to produce accurate definitions. Many candidates defined air pollution as the release of harmful gases rather than the contamination of the air by harmful gases. A suitable definition is *the contamination of the air by harmful or dirty substances or pollutants such as dust, smoke and carbon monoxide*.

Part (b) (iii) was answered poorly as more than 80 per cent of the candidates did not know the natural sources of air pollution, as common examples included man-made causes of air pollution. Expected examples included *bush fires, volcanic eruptions, pollen and dust*.

In Part (c), many candidates were able to identify the measures to reduce deforestation, but subsequently lost marks as they had difficulty developing the measures identified. Some candidates were unable to link the measures identified to a named Caribbean territory and as such lost one mark. Some candidates did not know the difference between reforestation and afforestation, and noted measures to reduce deforestation that have not been implemented in the identified Caribbean territory.

Some suitable measures expected were:

Reafforestation, which involves the replanting of trees in deforested areas, where farmers are usually allowed to maintain the trees by farming among them; forest reserves where large areas of environmentally fragile forests are converted to reserves where harvesting of trees are prohibited; education to bring about public awareness through the media, NGOs, etc. and legislation where laws and penalties are passed and enforced to reduce deforestation.

Question 10

This was a fairly popular question attempted by 46 per cent of the candidates. The mean mark was 12 of the maximum 24. This question tested candidates' ability to interpret a table, to identify areas of pollution and also state the type of pollution. Candidates were also asked to describe three ways to control either water pollution or land pollution and to explain the measures taken to reduce the emission of greenhouse gases.

This question pertaining to the table in Part (a) was well answered except for Part (a) (iv), where the answer methane was not recognized by many. All candidates who attempted this question were given the mark for Part (a) (i).

Part (b) (i) was fairly well done by candidates. Twenty per cent of them were unable to give a specific area on the type of pollution. Acceptable examples were:

*Kingston Harbour and Black River
Jamaica—water pollution
Caroni River, Trinidad — water pollution
Linden, Guyana — land pollution
Montserrat — air pollution*

Part b (ii) was also fairly well done. Candidates knew ways to control pollution and the majority answered this part correctly giving the ways of reducing land or water pollution. Acceptable examples included recycling; *proper sewerage treatment plants; public education; enforcing of laws; reducing weedicides/pesticides in agricultural areas and using specific facilities for ships to dispose of waste.* A few candidates made a list and did not expand or develop the ways correctly.

Part (c) had the weakest responses as candidates were able to identify the measures but did not explain how they reduce the emission of greenhouse gases. Several candidates had problems developing the measures for reducing the gas/emission and too many gave the problem of deforestation/afforestation to reduce greenhouse gases.

The focus of many candidates was ‘reducing greenhouse gases’ and not *reducing greenhouse gas emissions* as required and thus did not earn full marks.

Some candidates confused the concept of a ‘greenhouse’ with *greenhouse gases*. They also did not give proper examples of the gases so they did not get full marks. Their responses were too general rather than identifying specific gases; this was true for about 30 per cent of the candidates. The weaker candidates gave a list of measures which included using electric cars for transport; not burning garbage and not using harmful sprays but did not explain how these measures can reduce the emission of greenhouse gases.

Recommendations

- Candidates must familiarize themselves with the Caribbean territories and acquire the skill of drawing sketch maps of the Caribbean countries. A sketch map should take about four seconds to draw. This can be done only if a candidate practises drawing it, on his/her own, frequently. A territory’s shape can be compared to geometrical shapes which should form the ‘skeleton’ for the sketch map.
- Candidates need to pay attention to key geographical terms and their definitions.
- Candidates should pay attention to the details of and practise drawing relevant diagrams, especially of features in the natural systems. Neat, well-labelled diagrams (including a title) can earn full marks.
- Candidates should know the meaning of terms such as *list, state, describe, outline, explain and account for* when answering questions.
- Candidates need to develop the skill of answering questions which require explanations. They should be able to elaborate on single statements and must give reasons for (or the results of) actions or processes.
- Simple map-reading skills need to be practised frequently to be mastered. Candidates must see the map in 3-D. In the early stages of learning to read a map, simple models of the main types of landforms can be made from clay to help them ‘see’ the forms on imaginary sketch contour maps before they attempt to do so on topographical maps.
- Estimating and observing distances (10, 20, 100, and 400 metres, 1 kilometre), even as a game, to build a concept of distances would be helpful. Candidates would better recognize if their answers are incorrect when measuring distances on a map.
- More attention should be given to the objectives on climates, vegetation and soils since questions on them are always poorly done. The topics are easy to understand but often are not revised.

Models of the interaction in the biomes would help candidates understand and remember the characteristics and the interactions.

- In studying the Caribbean weather systems, the general circulation of the atmosphere in the Caribbean area, using the Hadley Cells, will provide a framework for the occurrence, distribution and seasonality of the systems and help candidates understand them.
- Above all, candidates must recognize that Geography is concerned about where things are on the face of the Earth. To this end, relevant maps are to be used. They should use atlases and should be able to show positions on a map or draw a sketch map to show it — whether it is a country or a volcano or a climate or an area of high population density or deforestation or anything else they study.
- Understanding is fostered by revision and practice. Candidates should be aware of this and revise and practise often, on their own, using questions to focus their revision or practice. This will lead to better performance on the examination.

Paper 031 – School-Based Assessment

There is a need for greater guidance be given to students in selecting topics for study as well as at all stages of the SBA project. The project is a teaching tool to help students to learn not only research techniques but to understand the environment. Many objectives in the syllabus, especially those in Natural Systems, are better understood through field studies. Too many studies were based on perceptions on social or economic issues. Apart from not being geographical studies, such studies lend themselves to ‘created’ data and teachers need to verify that the field work was done.

Plagiarism is a serious problem that must be penalized by the school. Some teachers have addressed this by not awarding marks for the methodology and the resulting data, analysis, discussion and conclusion and are commended for this.

Comments on the Field Report

Table of Contents

Too many candidates are losing this mark. Teachers must ensure that all pages are numbered consecutively in the report. The section headings are clearly outlined in the syllabus. Merely having a page called ‘Table of Contents’ does not earn the mark.

Aim of Study

There were too many broad aims as well as too many multiple aims that did not lend themselves to adequate data collection. The aim should include a delimited area of study (the spatial aspect) that is manageable and allows for the collection of primary data. The name of the territory must be included in the aim. The aim must be geographical and should be from an area included in the CSEC syllabus. The spatial aspect of the feature or characteristic helps to make the study geographical. Students need to know the nature of a *geographical question* — What is it? Where is it? With what and how is it related in space and time? — and demonstrate that in the aim.

Location of Study

There must be a map of the territory which clearly shows the location and the name of the study area. There should also be a site map which includes details of the site and immediate environs. The site map is not an enlarged parish map. If the maps are electronically generated, they must show signs of being

manipulated or altered so that they are relevant to the study. There must be inclusion of map conventions. At least the territory map must be drawn to scale.

Methodology

There was an overreliance on questionnaires. Many studies which used questionnaires generated information that was *the perception* of the respondents. When the main instrument of data collection is the questionnaire, then students should also include details that address the sample size and sampling method.

In describing the study area for the methodology, students should include the name of the study area, parish, if relevant, and territory.

In describing when the data collection occurred, students should include date, month and year. The study should have been completed one day within a two-year time period that reflects the timeframe during which the student was preparing for the examination.

Presentation of Data

Students should use at least three different types of appropriate illustrations, for example, tables, pie charts, bar graphs, photographs and sketches. Line graphs should only be used to show change over time. Pie charts should not be used to show 100 per cent of a variable. Students must avoid the reliance on secondary data. Photographs must be labelled and the axes of graphs must also be labelled. All illustrations must be titled and numbered, for example, Figure 1: Table to show... Illustrations must be referred to in the text and appropriately distributed throughout the analysis. Students should avoid using more than one type of illustration to represent the same data.

Quality of Data

The data collected must be relevant to the aim and must be comprehensive enough to draw reliable conclusions. Adequate field work must therefore be conducted.

Analysis and Discussion

Many students merely described the data presented. There should be an analysis of the data to show patterns or trends or explanations. Students should indicate whether their study supports textbook explanations, theories or models. In this section, the illustrations should be referenced. Poor analysis often accompanies a poorly stated aim.

Conclusion

The conclusion answers the aim by presenting a summary of the data. There should be no new information in the conclusion. New information presented in the conclusion cannot be credited.

Communication of Information

Students should pay attention to the correct use of the English language. There was generally appropriate use of geographical terms.

Bibliography

Many students were unable to score the marks assigned here. They are expected to be able to place at least two sources in alphabetical order by author's surname in the bibliography. Students must know and respect the convention for the sequencing of information in the entries in the bibliography. The list

of resources in the syllabus uses the MLA technique and should be used as a model/guide. The MLA method of presentation is the appropriate one for the project report.

Paper 032 – Alternative to SBA

This paper was attempted by 169 students.

The paper is an alternative to the field project and attempts to assess candidates' skills in designing a field project and in presenting and discussing data in a report. Having experience in doing this will be an asset in preparing for this paper. Many students did not have that experience.

Question 1

This question required students to locate features on a map. This was satisfactorily done by most students. Students are expected to complete the key for the map which many did not do. A good map must include a key.

Question 2

This question tested students' ability to write a research question. Many students were unable to write a very good research question. A good question would be: *What are the factors influencing the main types of land use in Moneague, Jamaica?*

Question 3

This question tested students' ability to carry out the research. Part (a) required them to give examples of items needed to carry out the research. This section was satisfactorily done. A good answer would be:

Source: Text book, map

Resource tools: Questionnaire, recording sheet

Equipment: Camera, writing implements

Part (b) required students to write possible questions that would be asked of residents. A good answer would obtain results on land use in the area. For example: *What crops do you grow?*

Many students wrote irrelevant questions. Students needed to consider the purpose of the study in framing their questions.

Part (c) was satisfactorily done. Most students were able to identify ways to conduct the research and the time period in which it would be done. Examples of possible answers include:

How: Residents would be randomly selected and questionnaires distributed to them.

When: Questionnaires would be distributed on 10 April 2015 in the afternoon when residents are at home.

Part (c) (ii) was poorly done. Students identified ways the data would be presented rather than how they would record the data in the field. A good answer would be: *Record answers to interviews on a record sheet and outline types of land use on a map of the area.*

Question 4

Part (a) required students to construct a pie chart. Many did not write a title for the diagram and consequently lost marks. Part (b) required an explanation of the tables. This was poorly done. A good answer looked at the common type of economic activity and the fact that basic services were offered.

Question 5

For Part (a), most students were able to write a good title; they were also able to draw the bar graph in Part (b). However, in Part (c) many were unable to adequately interpret the tables and just rewrote the information presented. A good answer included the most common reason for selecting the housing scheme and the fact that most residents were young professionals.

Question 6

This question required students to write a bibliography. No one got this question correct. They were to have written:

Guinness, Paul et al, *Geography for CSEC*, Cheltenham, Nelson Thorne, 2008.

Students should know the conventions to be used in compiling a bibliography. The MLA technique is appropriate for this exercise. The list of resources in the syllabus can be used as a model. It uses the MLA method of presentation.

C A R I B B E A N E X A M I N A T I O N S C O U N C I L

**REPORT ON CANDIDATES' WORK IN THE
CARIBBEAN SECONDARY EDUCATION CERTIFICATE[®]
EXAMINATION**

MAY/JUNE 2016

**GEOGRAPHY
GENERAL PROFICIENCY EXAMINATION**

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GENERAL COMMENTS

This year over 12 000 candidates wrote the CSEC Geography Examination. Approximately six per cent of these candidates earned Grade I, and approximately 69 per cent earned Grades I–III. This represents an improvement over 2015 when approximately 5 per cent of candidates earned Grade I and 62 per cent earned Grades I–III.

Performance on Paper 01 was satisfactory. In Paper 02, however, while candidates continued to demonstrate knowledge of general relationships they did not always provide specific examples. This weakness was evident in every question, including cases where examples from the Caribbean or the topographic map were required. It has to be repeated that the central themes of Geography are spatial patterns, spatial relationships and interrelationships. Candidates must know where what is being studied is found and the importance of the location. As stated in the rationale of the syllabus (page 1), *Spatial expression and map-reading skills are essential to a study of the subject*. Map-reading continues to be unsatisfactory. Performance on Section B — Natural Systems, was also unsatisfactory. As in 2015, the three weakest questions, after map-reading, were the three questions in this section. Performance in both Sections C and D was satisfactory.

Performance on the School-Based Assessment, Paper 031, was slightly better this year but there were still some topics that were not related to the syllabus objectives, some which were nongeographic and there were still cases of plagiarism.

There were some good responses on Paper 032, the Alternative to School-Based Assessment, but many showed a lack of proper preparation.

DETAILED COMMENTS

Paper 01 – Multiple Choice

This paper consists of 60 multiple-choice questions assessing objectives across all parts of the syllabus. Performance was satisfactory as the mean was 65 per cent represented an increase over the 61 per cent in 2015. As in the two previous years, candidates did best on the questions testing the Human–Environment Systems while their performance on Natural Systems continues to fall below the required standard.

Paper 02 – Structured Response

This paper comprised ten structured response questions, the first of which was compulsory and tested map-reading skills. The other nine questions tested specific objectives in the Natural, Human and Human–Environment Systems. Candidates were required to answer one of the three questions based on each set. Questions 2, 5 and 9 were the most popular, each attracting over 60 per cent of the candidates. Questions 3, 7, 8 and 10 each attracted less than 20 per cent.

The overall mean on the paper was 40 per cent compared with 37 per cent in 2015. The questions on Human Systems had the highest means.

Section A – Map-reading (Compulsory)

Question 1

There was a significant improvement in the responses to this question. A 50 per cent increase was noted in the number of candidates who scored over 15 compared with those in 2015.

Part (a) tested candidates' ability to give the six-figure grid reference. About 80 per cent gave correct answers, an improvement in comparison to former years. Of the candidates who gave incorrect answers, 90 per cent correctly identified the square.

Part (b) tested the candidates' ability to calculate the distance along a curved road, to the nearest hundred metres. Candidates were expected to measure the distance and correct to the nearest 100 metres. Over 70 per cent answered correctly and about 20 per cent were unable to give the correct unit.

Part (c) required candidates to calculate grid bearing. Again there was a marked improvement in the responses given. Eighty per cent of candidates answered correctly. Some confusion was observed with candidates who could not differentiate between "to" and "from" and several candidates used the back bearing. Therefore 180° was added to the correct bearing of 65° .

Part (d) required candidates to give the compass direction. Approximately 65 per cent answered correctly. Incorrect answers showed an inability to use the 16-point compass, giving south west as the answer instead of west south west. Five per cent did not attempt this part of the question.

For Part (e), candidates were required to express the representative fraction, testing their ability to differentiate between the types of scale. This part of the question was poorly done. Candidates clearly misunderstood what the question required of them, with responses ranging from $(1/2)$ to adding units to the fraction. Only 25 per cent of candidates gave correct responses, and more than 45 per cent omitted this part.

For Part (f), candidates were required to identify government services in Port Royal. This section was very well done and 90 per cent of the responses were correct. However, a few candidates misunderstood the term 'government services', listing school, hospital and church within the other government services. About 95 per cent listed at least two. Weaker candidates were able to score the maximum of three marks for this section and in some cases this was their total score on the entire question.

In Part (g), candidates were required to do gradient calculation. There was a marked improvement in the responses, compared with responses in previous years. Approximately 20 per cent of candidates gained the maximum three marks on this part. Approximately 50 per cent achieved two marks, stating the formula and correct height. Calculating the

horizontal distance was a challenge for many as well as the division process. About 10 per cent merely subtracted the two given heights.

For Part (h), candidates were required to describe four characteristics of the settlements on the map extract. This part was poorly done. Less than 30 per cent gained more than half the marks. Many failed to expand their points and more than 50 per cent described characteristics unrelated to settlement. For example:

- *Listing drainage patterns*
- *Describing populations and economic activities*
- *Giving reasons for settling in particular areas.*

These were general statements, apparently learnt by rote, but not relevant to the map.

A good response should have included characteristics such as descriptions of linear, nucleated and sparse, with appropriate examples for each characteristic identified. For example:

Linear settlement found on hilly areas in the north east.

In Part (i), candidates were required to relate three types of land use to the relief, giving specific examples from the map. Approximately 65 per cent of candidates were able to identify the land use with an example but failed to associate land use with relief. Some candidates did not understand the concept of relief. Many candidates did not provide accurate map evidence for the areas described preventing them from achieving maximum points.

Section B – Natural Systems

Question 2

This was the most popular question in this section and was attempted by approximately 59 per cent of candidates. The question tested candidates' knowledge of coastal landforms, geographical processes and the result of plate movements. The average mark was 9.11 out of a possible 24 or approximately 38 per cent.

In Part (a), candidates were required to draw a diagram showing the formation of a spit. This was poorly done by most candidates. Candidates lacked knowledge of the landform; many drew river features and other erosional features associated with coasts, for example, stacks and bars. The question also required that candidates relate their knowledge of longshore drift. Many were unable to do so and when done, was often inaccurate. Simple errors in labelling were also made.

Candidates also lost marks as they omitted a title for the diagram.

Part (b) (i) tested candidates' knowledge of geographical terms. Many did not score full marks as although they were able to describe the rate of movement, they omitted the role of gravity.

They also omitted the fact that weathered material was involved in the process. An example of an expected answer would be:

“Soil creep is the slow movement of weathered material downslope due to the influence of gravity.”

Part (b) (ii) required that candidates give evidence of the occurrence of soil creep. Most candidates were able to earn at least one mark.

Part (b) (iii) required that candidates give examples of human activities that contributed to landslides. Many failed to earn marks as they were unable to say that the activities took place along a slope.

Candidates scored most of their marks on Part (c). Part (c) (i) required that candidates explain how earthquakes occur along transform boundaries. This was fairly well done. However, some candidates wrote that transform boundaries are associated with the collision of plates. A good answer would be:

“At a transform boundary, two plates slide past each other. As they do so, the plates grate and rub as their edges are not smooth. Sometimes the plates interlock resulting in a build-up of pressure. Eventually, the plates snap, releasing the built-up energy and producing an earthquake.”

Part (c) (ii) required that candidates account for the formation of volcanoes and fold mountains at destructive plate boundaries. Many candidates did not separate the discussion of the two types of landforms but attempted to explain their formation as one process. Some candidates described divergent plate margins with plates moving apart. Many, in describing the subduction zone, suggested that there is a space at this point through which magma is emitted. In addition, many claimed that the continental plate is the subducted plate as it is lighter and is forced downwards by the heavier, oceanic plate.

The following is an example of a good answer:

Fold mountains: “The two plates move together, the oceanic and continental plates. The heavier oceanic plate subducts beneath the continental plate. At this point, eroded sediments collected between the converging plates begin to buckle with the compression. The leading edge of the continental plate buckles against the oceanic plate.”

Volcanoes: “When the two plates meet, the oceanic plate subducts. As the oceanic plate moves downwards, water is driven off and rises into the overriding plate. This lowers the melting point and promotes the formation of magma in the lower crust. The magma collects in a magma chamber. It then rises up through cracks in the continental crust to the surface to form volcanoes.”

Question 3

This question tested candidates' knowledge and understanding of limestone features, waterfalls and weathering. It was the least popular question in the section and on the paper as only 10 per cent of the candidates attempted it.

Part (a) was attempted by most candidates who chose this question and they gave recognizable representation of the country in question. Candidates lost marks for not giving a title and/or a key or label.

Candidates' answers to Part (b) (i) were weak. Few candidates gained marks here as most, while describing the formation of waterfalls, were not focused on describing waterfalls where "there are alternate layers of hard and soft rocks". Instead, they described and illustrated the waterfalls formed with a horizontal resistant cap rock. Few were able to describe the rock layers as dipping upstream or vertical and the initial formation of rapids in the development of the waterfall.

Part (b) (ii) was reasonably well done. The majority of candidates were able to describe the part played by temperature change in the process of frost shattering. However, a few candidates mentioned seasonal changes instead of diurnal changes in their discussion.

In Part (c) (i), candidates addressed the influence of chemical composition in the weathering of limestone; a few also explained in detail the role of rock structure, as required by the question. Many described the chemical composition and structure but did not explain how these properties influenced the weathering process. Few identified that both the pervious nature of limestone and its joints presented lines of weakness that allowed rainwater to enter the rocks and cause weathering.

In Part (c) (ii), candidates were able to explain the formation of pillars as it relates to the joining of stalactites and stalagmites. However, although names were incorrectly spelt, most were able to draw accurate diagrams of the limestone cave and its related features. Details, however, such as the evaporation of water and the accumulation of calcite crystals, were omitted.

Generally, the responses of candidates were accompanied by labelled diagrams with the stronger candidates being able to enhance their answers.

Question 4

This question tested candidates' knowledge of aspects of climate and vegetation. It was attempted by 32 per cent of the candidates. The average mark was 5.79 or 24 per cent.

Part (a) was reasonably well done. Candidates responded well to the table provided. A large number of candidates, however, did not understand the term "trends" in (a) (iii).

Part (b) was poorly done and presented the greatest challenge. The question asked for characteristics of the weather associated with the passing of a tropical wave, but candidates

listed the events that occur such as “flooding, rough seas, etc.”; others simply mentioned the elements, for example rainfall, wind, pressure, sunshine and temperature.

Part (c) was done well by the majority of candidates. Unfortunately, they were unable to gain maximum marks because they failed to make proper comparisons of the methods of adaptation. The majority of candidates listed/stated the correct adaptations but did not match them for comparison. Some candidates did not realise that “vegetation” means natural vegetation and referred to crop cultivation and thus failed to earn marks.

Section C: Human Systems

Question 5

This was the most popular question in this section and was attempted by 65 per cent of the candidates. It tested the candidates’ skills in drawing a line graph and their knowledge and understanding of urbanization and population distribution. The mean mark was 10.72 out of a maximum of 24 or 45 per cent.

Most candidates scored full marks on Part (a). Neatly drawn line graphs with suitable titles and labelled axes were produced. A few candidates displayed a total lack of the skill of drawing line graphs. A few produced a regression line and bar graphs.

Part (b) (i) was poorly done. The vast majority of candidates could not define urbanization. They confused urbanization with rural–urban migration. The definition expected was that it is *“the process by which an increasing proportion/percentage of a country’s population lives in towns and urban areas.”* Part (b) (ii) was answered satisfactorily by most candidates although a large minority incorrectly listed factors such as “a green belt policy” and “establishing new towns.” These measures limit the growth of individual cities but not the process of urbanization.

Performance on Part (c) varied. The majority of candidates were able to explain the factors influencing population distribution and gave specific examples/place names within Caribbean territories. A large minority confused “natural vegetation” with “cultivated vegetation/crops” and some interpreted the “presence of minerals” to mean the inorganic/mineral part of soils/soil fertility. A few candidates also incorrectly associated “soils” as a factor of population distribution with the strength of the soil or ability of the soil to withstand the weight of buildings.

Question 6

This question tested candidates’ knowledge of tourism in the Caribbean and tourism as an economic activity.

While it was not the most popular question in this section, it was still attempted by approximately 25 per cent of the candidates. The mean mark was 9.88 or approximately 41 per cent.

In Part (a), candidates were required to use given data to construct a pie chart. While most candidates used geometrical tools, the accuracy was a challenge. Most candidates earned marks for an acceptable title. Many candidates did not use a key or labels.

In Part (b), candidates were able to give an example of a primary economic activity. However, they were unable to give a concise definition of the term.

Many candidates were unable to give an acceptable response to Part (b) (ii) of this question. Candidates outlined economic benefits of tourism rather than the factors which influenced the **development of the tourist industry**. As a result, candidates performed poorly on this part, earning the least number of marks.

For Part (c) (i), candidates were asked to outline three ways in which tourism benefits Caribbean economies. Candidates were knowledgeable and this section was best done. Most candidates were able to identify that tourism brought income/foreign exchange to the country and that the industry provided employment for Caribbean nationals. However, many candidates failed to expand on the benefits listed in order to earn maximum marks.

Part (c) (ii) asked candidates to explain three challenges facing tourism in the Caribbean. Many candidates were able to give acceptable responses. The good responses included explanations of challenges such as the global recession, crime, competition from cheaper destinations, the impact of natural disasters and degradation of the natural environment, such as coral reef destruction and beach pollution.

Overall, the performance of candidates indicated that they were familiar with the content tested.

Question 7

Approximately 12 per cent of the candidates attempted this question making it the least popular in the section. However, the mean mark of 11.33 or 47 per cent was the highest in this section.

For Part (a), candidates were required to construct a bar graph. Generally, the candidates were able to construct the correct bar graph with an appropriate title. Some candidates excluded labels for the bars or did not use a key to indicate the country. The ‘US\$ Millions’ label on the y-axis was also left out by some candidates.

In Part (b) (i), candidates were required to state four characteristics of large-scale arable farming in the Caribbean. Most were able to score full marks on this question. Correct answers included large farm size, monoculture, export-oriented production and mechanization.

For Part (b) (ii), candidates were required to describe the characteristics of peasant farming in the Caribbean under any two headings chosen from location, size of plots, labour supply and farming practices. Some candidates did not provide the specific headings for their answers. While most were able to identify characteristics, they did not assign said characteristics to the

relevant headings. Common correct answers included *labour supplied by family members with little reliance on paid labour, small plots and the use of manual tools.*

For Part (c) (i), candidates were required to state reasons for the decline in the importance of agriculture in the Caribbean. Some candidates only listed the reasons for the decline but did not provide sufficient details to obtain full marks on this question.

Common correct answers given were *the lack of interest in farming by young people as there is a negative stigma attached to farming, and agricultural lands being used for other purposes, for example, tourism.*

For Part (c) (ii), candidates were required to outline the similarities and differences between large arable farms in the Caribbean and wheat farms in Canada in terms of farming practices and market trends. In general, candidates were better able to provide correct details for similarities in farming practices and market trends as opposed to the differences.

An appropriate difference in market trends would have been that *while Canada exports wheat globally, the Caribbean producers tend to export to North America, Europe and the Caribbean region.*

An appropriate difference in farming practices would have been that *for harvesting, manual labour is still widely used in the Caribbean. On the other hand, machines are widely used in Canada, for example, on the Prairies.*

Section D: Human-Environment Systems

Question 8

The question was attempted by approximately 12 per cent of the candidates. The question tested candidates' knowledge of (i) names of the islands in the Northern Caribbean; (ii) the contribution of bauxite mining to air and water pollution; and (iii) the Caribbean Disaster Emergency Management Agency's (CDEMA) role in assisting member states in response to hazards and disasters. The performance of most candidates on each aspect was unsatisfactory. The mean mark was 7.37 out of a possible 24 or approximately 31 per cent.

In Part (a), the candidates were given a map titled, Figure 1. Track of Hurricane Jeanne during the 13 to 26 September 2004. This part required them to identify the group of islands that were affected when the weather system was a hurricane. The performance in this section was unsatisfactory. It was revealed that candidates did not have a clear knowledge of the countries of the Northern Caribbean. The candidates did not respond well to the stimulus material provided. Some had difficulty identifying the islands affected when the weather system was a hurricane and in identifying the changes in the weather system between the 19 and 24 September. A majority of candidates were able to identify the changes in the direction of the weather system, but could not outline it.

The correct responses for (a) (i) and (ii) were:

- (i) *Bahamas*
- (ii) *Dominican Republic*

Candidates are advised to study the map of the Caribbean, identify the countries and frequently practise naming them.

Part (b) was moderately well done. Most candidates were able to score four out of eight marks. Some of the candidates, however, ignored the instructions and did not link air pollution and water pollution to bauxite mining.

Part (c) required the candidates to explain two ways in which CDEMA assisted member states to respond to hazards (pre-disasters) and disasters. Candidates' responses were not satisfactory. The majority of the candidates earned 20 per cent of the marks allocated for this section. The candidates could not differentiate between hazards and disasters. They also confused the role of CDEMA with that of their national agencies.

An expected response to CDEMA's role in assisting member states to respond to hazards (pre-disasters) was:

"CDEMA assists member states to respond to hazards by getting the people prepared for the disaster. They send out things on air or live to tell people what to do and how to do it. They help people fix their homes and get them to safe places."

Some expected responses were:

- *Capacity building: training disaster personnel and stakeholder in various aspects of disaster management.*
- *Dissemination of information: Public awareness campaigns are often aired throughout the Caribbean on how to respond to various hazards, for example, the recent jingles on the subjects of earthquakes and tsunami warnings.*

Question 9

This was the most popular question in this section and it had the highest mean on the paper. The mean mark earned was 12.96 or approximately 54 per cent.

For Part (a), candidates were given a table with information on the effects of a hurricane on the Caribbean. They were required to answer the subparts of this question with information from the table.

More than 80 per cent of the candidates answered Parts (i), (ii) and (iii) with 100 per cent accuracy. For Parts (ii) and (iii), a few candidates rounded off the figure to a whole number. In these cases, no mark was awarded.

For Part (iv), approximately 95 per cent of the candidates did not give the correct answer for the total damage to the Windward Islands. This was due to the fact that candidates were not able to identify the Windward Islands from the table.

Part (b) (i) was poorly answered, with more than 80 per cent of the candidates having difficulty defining the term 'natural hazard'. Candidates were able to score one mark for stating that it was an 'unpredictable threat to life and property'. However, they were unable to include that it 'arises within the physical, climatic and biotic environment'.

Additionally, far too many candidates were using the words 'hazard' and 'disaster' to be synonymous. For example, such candidates stated that "*a natural hazard is a disaster which damages life and property*". An example of a suitable answer is: *a natural hazard is an unpredictable threat to life and property arising within the physical, climatic and biotic environment*.

Part (b) (ii) required candidates to describe THREE ways in which one of three hazards (namely, earthquake, volcano or hurricane) impacts life and property.

The response to this question was fair. Most candidates had a general idea of the impacts of hazards on life and property, but there was evidence of difficulty in connecting the impacts to aspects of the hazard responsible for identified impacts. For example, candidates would note that a volcanic eruption results in the destruction of settlements and/or buildings and agriculture, but failed to mention that pyroclastic flows, ash falls or lahars are the cause of the identified impact.

Some candidates ignored the instructions and wrote on the impacts of all three hazards instead of one as stipulated by the question. Additionally, some candidates **listed** the impacts rather than **describing** as the question required.

More acceptable responses included:

- *Hurricanes cause damage to property as a result of strong winds.*
- *Volcanoes produce lahars during an eruption and these destroy vegetation and settlements in their path.*
- *Earthquake vibrations rupture gas and power lines which can lead to fires.*

Part (c) (i) assessed candidates' knowledge of the causes of deforestation in the Caribbean. The response to this part of the question was generally good, as many candidates were able to clearly identify the causes of deforestation in the Caribbean, while citing specific Caribbean examples. However, a few candidates failed to define deforestation in each point mentioned. For example, candidates wrote "to build roads" OR "for building settlements", without reference to clearing of trees for road construction OR clearing of trees for urban expansion (building of settlements, etc).

For Part (c) (ii) candidates were required to explain TWO consequences of deforestation. The response to this part was generally good, as many candidates were able to clearly explain the consequences of deforestation. However, more than 80 per cent of the candidates failed to

identify the specific examples within the Caribbean where the listed consequences are evident. Additionally, a few candidates misunderstood the terms “causes and consequences” and this adversely affected their response.

Suitable responses included *“Soil Erosion - resulting from the cutting down of trees which protect the soil from the direct impact of the rain and retard runoff. For example, in the Northern Range of Trinidad or Yallahs Valley in Jamaica”*.

Question 10

This question focused on the effect of pollution and measures to counteract it. It was the least popular question in the section as only about 10 per cent of the candidates attempted it. The mean score was 12.45 or approximately 52 per cent.

Part (a) tested candidates’ ability to interpret a graph. These questions were well answered except for (a) (iv) where many candidates did not recognize the correct response.

In Part (b), candidates were required to describe one measure used to reduce the harmful effect of pollution, and this part was fairly well done. However, some candidates incorrectly assigned the responses to the different headings and therefore gave the inappropriate answers for the particular heading. For example, some candidates used carpooling under the heading use of everyday materials whereas that was more suited for environmental protection practices.

Some expected acceptable responses under each heading were:

- *Industrial and technological operations*
 - *Reduce emissions*
 - *Use cleaner production processes*
- *Environmental practices*
 - *Reuse and recycle*
 - *Enforcement of regulations by government*
- *Use of everyday materials*
 - *Use biodegradable materials/wrapping*
 - *Use organic instead of synthetic fertilizers*
- *Energy sources*
 - *Use energy efficient appliances*
 - *Use alternative energy sources*

In Part (c), candidates were asked to explain measures that are used to reduce greenhouse gases and coral reef degradation. The responses were generally good with the best answers written on coral reef degradation. Most of the candidates identified and explained the measures that are used to prevent the degradation of the reefs. Some of the acceptable measures explained were:

- *Use of regulations to prevent damage to reefs*
- *Education programmes to sensitize users on the benefits of protecting reefs*
- *Monitoring of fishing methods to prevent types which destroy reefs*

The measures stated for the reduction of greenhouse gases were identified but not well explained. For example, candidates explained recycling as a measure but failed to show how it can lead to the reduction of greenhouse gases. Similarly, for the use of alternative sources they explained the measures but did not explain that they do not contribute to the emission of greenhouse gases.

Recommendations

- Candidates should practise drawing Caribbean countries, on their own, frequently. A territory's shape can be compared to geometrical shapes which can form the 'skeleton' for the sketch map. Ideally, while not drawing to scale, candidates should give the approximate line scale of their sketch maps.
- Candidates need to pay attention to key geographical terms and their definitions. For example, "vegetation" refers to "natural vegetation" and does not include crops.
- Questions which ask for the answer using a list of headings require the candidates to treat each heading separately. The heading could be written as a subtitle. (Candidates who merge all the headings fail to gain full marks as they do not sort and present the information as directed).
- Candidates should pay attention to the details of features and practise drawing relevant diagrams, especially of features in the natural systems. Neat, well-labelled and annotated diagrams (including the title) can earn full marks when used to describe or explain the characteristics of features.
- Candidates, when asked for explanations, should not only list the results but must give the reasons for (or the results of) actions or processes, even if they seem obvious. For example, hurricanes cause coastal damage because the powerful, sustained winds produce destructive waves and a storm surge above the normal high tide level.
- Simple map-reading skills need to be practised frequently to be mastered. Candidates must use their imaginations to see the map in 3-D and to visualise the landscape it portrays. Google Earth can help when teaching this. In the early stages of learning to read a map, simple models of the main types of landforms can be made from clay and matched to imaginary contour maps before the students attempt reading topographical maps. Atlas maps which use hill-shading to show relief can be used to help teach landforms and the concept of relief.
- In map-reading, wrong answers, such as 400 kilometres, when the correct answer is 40 metres show a poor concept of distance. To remedy this, estimating and

observing distances (10, 20, 100, and 400 metres, 1 kilometre), even as a game, to build a concept of distances would be helpful. Candidates, with a concept of distance, should first estimate the distance they have to measure using the line scale. They would then better recognize if their answers are incorrect when measuring distances on a map.

- More attention should be given to the Specific Objectives on climates, vegetation and soils since questions on these topics continue to be done poorly. The topics are easy to understand and must be revised often for learning to take place. Diagrams of the interaction in the biomes would help candidates understand and remember the characteristics and the interactions.
- In studying the Caribbean weather systems, presentation of the general circulation of the atmosphere in the Caribbean area, using the Hadley Cells, will provide a framework for the occurrence, distribution and seasonality of the systems and help candidates understand them.
- Geography is concerned about where things are on the face of the Earth and the significance of this. To this end, maps are to be used. Students should use atlases and should be able to show positions on a map or draw a sketch map to show it — whether it is a climatic region, an area of high population density, a mineral resource, or area of deforestation or anything else they study.

To improve performance overall:

- Revision and practice are the critical procedures by which learning occurs. Candidates should be made aware of this and encouraged to revise and practise often, on their own, while using questions to focus both their revision and practice. This will lead to better learning and subsequent better performance in the examination.
- Candidates (and teachers) should use the free Internet resource provided for CSEC Geography through cooperation between CXC and Notesmaster Caribbean. “Notesmaster Caribbean is a freely accessible e-learning platform, designed to contribute to the growth of a Global Education Network for secondary level students. The platform enables students and educators from across the Caribbean to learn and share resources, using the familiar CSEC and CAPE syllabuses as a framework.” <http://caribbean.notesmaster.com/about-us.html>.

Paper 031 – School-Based Assessment (SBA)

There is a need for greater guidance be given to students in selecting topics for study as well as at all stages of the SBA project. The project is a teaching tool to help students to learn not only research techniques but to understand the environment. Many objectives in the syllabus, especially those in Natural Systems, are better understood through field studies. Too many studies were based on **perceptions** on social or economic issues and used questionnaires.

Apart from not being geographical studies, such studies lend themselves to ‘created’ data. Teachers need to verify that the field work was done.

The Strategy Sheet should be reviewed before the study is done to ensure that the strategy suits the aim.

Plagiarism is a serious problem that must be penalized by the school. Some teachers have addressed this by not awarding marks for the methodology and the resulting data, analysis, discussion and conclusion and are commended for this. The Geography syllabus allows a group to do the same field project but requires each student to compose his/her own report.

Comments on the Field Report

Many students have been using the CSEC Social Studies sub-headings. This practice is inappropriate. The sub-headings below, except “Quality of Data” and “Communication of Information”, should be used.

Table of Contents

Too many candidates are losing this mark. They must ensure that all pages are numbered consecutively in the report. The section headings are clearly outlined in the syllabus. **Merely having a page called ‘Table of Contents’ does not earn the mark.**

Aim of Study

There were too many broad aims as well as too many multiple aims that did not lend themselves to adequate data collection in the field.

The aim should include a small, delimited area of study (the spatial aspect) that is manageable and allows for the collection of primary data. The name of the country must be included in the aim. The aim must be geographical and should be from an area included in the CSEC Geography syllabus.

The spatial aspect of the feature or characteristic helps to make the study geographical. Students need to know the nature of a *geographical question* — What is it? Where is it? With what and how is it related in space and time? — and demonstrate that in the aim. If it is the intention to make recommendations from the study, this must be said in the aim. Note, however, that such recommendations are not required in the current syllabus.

Location of Study

There must be a map of the country which clearly shows the location and the name of the study area.

There should also be a site map which includes details of the site and immediate environs. **The student must demonstrate in the site map how to access the study area.** The site map is not an enlarged parish map or of the layout of a factory. If the maps are electronically

generated, they must show signs of being manipulated or altered so that they are relevant to the study. These maps must be drawn with due respect to map conventions. The country map must be drawn to scale.

Methodology

There was an over-reliance on questionnaires. Many studies which required observations and measurement in the field by the student were inappropriately conducted by means of a questionnaire. Many questionnaires generated information that was *the perception* of the respondents. When the proper instrument of data collection is a questionnaire, the students should also include details that give the sample size and sampling method.

In describing the study area for the methodology, students should include the name of the study area, parish or region, if relevant, and country.

In describing when the data collection occurred, students should include date, month and year. The study should have been completed in one day within a two-year time period that reflects the timeframe during which the student was preparing for the examination.

In this section, the Profile 1 and Profile 2 marks were frequently incorrectly allocated.

Presentation of Data

Students should use at least three different types of appropriate illustrations, for example, tables, pie charts, bar graphs, line graphs, photographs, sketch maps and field sketches. Line graphs should only be used to show change over time. Pie charts should not be used to show one item with a value of 100 per cent. Students must avoid the reliance on secondary data. Photographs must be labelled and the axes of graphs must also be labelled. All illustrations must be titled and numbered, for example, *Figure 1: Table to show...*

Illustrations must be referred to in the text and appropriately placed throughout the analysis. Students should avoid using more than one type of illustration to represent the same data. Illustrations which are not referred to serve no purpose and earn no marks.

Quality of Data

The data collected must be relevant to the aim and must be comprehensive enough to allow the student to draw reliable conclusions. Adequate field work must therefore be conducted.

Analysis and Discussion

Many students merely described the data presented. There should be an analysis of the data to identify patterns or trends or give explanations guided by the aim. Students should indicate whether their study supports textbook explanations, theories or models or seems to be an exception. In this section, reference should be made to the illustrations. Poor analysis often accompanies a poorly stated aim.

Conclusion

The conclusion answers the aim by presenting a brief summary of the data and states if the aim was met. There must be no new information in the conclusion. New information presented in the conclusion cannot be credited. Often students deviated from their aim by introducing recommendations which were not part of the aim of the study. The conclusion should simply state if the aim was met.

Communication of Information

Students should pay attention to the correct use of the English language. There was generally appropriate use of geographical terms.

Bibliography

Many students were unable to score the marks assigned here. They are expected to be able to place at least two sources in alphabetical order by author's surname in the bibliography. Students must know and respect the convention for the sequencing of information and the punctuation in the entries in the bibliography. The list of resources in the syllabus uses the Modern Language Association (MLA) style and should be used as the model or guide for the bibliography. The MLA method of presentation is the appropriate one for the project report.

Paper 032 - Alternative to School-Based Assessment

This paper was attempted by 195 candidates. It was marked out of 40 and the mean score was 12.68 or 32 per cent. This represents a decline in performance from 2015 when the mean was 16.55 (41 per cent).

The paper is an alternative to the School-Based Assessment and attempts to assess the candidate's skills in designing a field project and in presenting and discussing data in a report. It assesses the identical profiles as those of the SBA. Field reporting experience is crucial for candidates to perform well on this paper. Unfortunately, many candidates did not possess the requisite experience.

Question 1

This question tested the ability of the candidates to draw location and site maps.

Part (a) required candidates to locate Kingston on a map of Jamaica. This was not very well done. Several candidates did not attempt this question and many were not certain where to locate Kingston. A small circle or a square should have been inserted and labelled with the word 'Kingston'.

Part (b) tested the candidate's ability to use the insert and reproduce the roads to the study area on a grid in the answer booklet, the site map. Although this question was attempted by most candidates only a small number achieved the full marks. Many candidates had good

drawings but provided no keys while a few had keys without the roads on the grid. The main difficulty encountered was that many candidates only inserted the roads in Half Way Tree. No marks were awarded in this case.

Question 2

This question tested candidates' ability to write a research question or hypothesis on the assertion that most of the regular customers of the supermarket in the mall were not from the local area. Some of the well-prepared candidates scored well but many candidates were unable to write a very good research question. An example of an acceptable answer is: *Do the majority of regular supermarket customers live outside the local area?* Similarly, a reasonable hypothesis is that the majority of the regular supermarket customers originate outside the local area. A good answer required two essential elements. It had to refer to the majority of customers and whether they were local or non-locals.

Question 3

Part (a) of this question required the candidates to list six variables on which they would collect data for the research question developed in Question 2. This appeared to be a major challenge and only a few candidates scored well enough to earn 4 to 6 marks. Many candidates focused on the reasons for shopping, customer satisfaction, and the time it takes to get to the supermarket. However, age, gender, address, frequency of visit, mode of transport and length of patronage were the required variables. In a few cases, the answers for last year's question were given, implying they were learnt by heart and just repeated, even though irrelevant.

Part (b) allowed candidates to state how and when they would conduct a survey yet the performance was below expectation. A questionnaire was required as was a visit to the supermarket in the mall and the questionnaires had to be distributed with an indication of how the customers would be selected. Very few candidates mentioned a sampling method. The target number of customers was also useful.

The time when the survey would be conducted, required the day (for example, Friday) or period (weekend) and a specific time period (for example, 1:00 p.m. to 5:00 p.m.). A minority of the candidates had all these elements.

Part (c) (i) was satisfactorily done. Most candidates were able to identify a reasonable problem but fewer were able to provide suitable solutions. The most popular problem cited was uncooperative customers.

For Part (c) (ii), the solution that was frequently suggested was to convince the uncooperative customers that the survey was genuine. However, hardly anyone suggested providing a letter of approval from their school principal or permission from the store manager to give credence to their claim.

Question 4

Part (a) of this question required candidates to construct a bar graph. This was extremely well done with over 95 per cent of the candidates scoring full marks.

Part (b) required candidates to use the map and the Table 1 to suggest conditions that could affect customers. This was not answered well as candidates seldom referred to the map or table. Superficial answers were the norm such as crime, conditions of the road and that several schools were in the area. The better candidates referred to road network, population density and the possibility of competitors.

Question 5

For Part (a), most candidates wrote an incomplete title for the pie chart and few were able correctly calculate the degrees and construct accurate angles. While the requirements were challenging, many more candidates were expected to perform well on this question. Generally, candidates treated the category “other” by components rather than en bloc. This increased their work load and inaccuracy of their efforts.

Part (b) asked the candidates for another diagram that could be used to represent the information in the pie chart. The answer was a bar graph but several candidates incorrectly suggested a line graph.

Part (c) tested the candidates’ ability to offer suggestions for land use changes on the edge of a city represented in Table 2. This was poorly done since only a few candidates offered geographical explanations. Most candidates simply mentioned the changes but few offered appropriate suggestions. Acceptable responses included sale of farmlands due to loss of labour or sale of farms for commercial activities. Similarly, housing may have declined due to noise pollution forcing families to move or the conversion of houses to businesses.

Question 6

This question required candidates to write the elements of a bibliography in an acceptable order. Several candidates were successful but many did not attempt the question or arbitrarily wrote the elements, apparently not aware of the conventions.

It is a concern that candidates still experience major difficulties with the bibliography. The MLA style is the appropriate style for reports such as the field project report and candidates are expected to be familiar with this style.

C A R I B B E A N E X A M I N A T I O N S C O U N C I L

**REPORT ON CANDIDATES' WORK IN THE
CARIBBEAN SECONDARY EDUCATION CERTIFICATE®
EXAMINATION**

MAY/JUNE 2018

**GEOGRAPHY
GENERAL PROFICIENCY EXAMINATION**

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GENERAL COMMENTS

This was the second year of examinations assessing the revised Geography syllabus and compulsory format of the examination. A total of 11 610 candidates sat CSEC Geography which is fairly consistent with 2017. The number of candidates achieving Grades I–III was 69.3 per cent, an improvement from 64.9 per cent in 2017. There was a slight increase in the number of candidates obtaining Grade I this year.

This increase in performance was most noticeable on Paper 01, the Multiple Choice paper, where the percentage of candidates achieving Grades I – III was 80.8 per cent compared with 76.7 per cent in 2017. On Paper 02, the number of candidates obtaining Grades I and II was fewer than 2017, but more candidates obtained Grade III.

Candidates' performance continues to indicate that they find the physical geography components challenging as reflected in their performance on Questions 1 and 2 of Paper 02. The best performance was noted in the human geography question, with some exemplary responses, indicating that the questions were well within the capabilities of well-prepared candidates.

Candidates performed slightly better on the SBAs, with 94.6 per cent achieving Grades I–III compared with 93.7 per cent in 2017. More candidates obtained Grade I (41.35 per cent) on the SBA in 2018 than in 2017 (20.35 per cent). While this indicates that better quality studies are being conducted and reported, nonetheless, some projects were still found to be not directly related to any objective on the syllabus.

The number of candidates achieving Grades I–III on Paper 032 decreased from 68.3 per cent in 2017 to 39.9 per cent in 2018. Candidates' responses reflected a lack of understanding of how to undertake a field study and they were challenged with the physical geography components included on the paper.

Overall, candidates' responses continue to show that there is a lack of understanding of some basic geographical concepts and terms. This was sometimes reflected in their interpretation and response to questions.

Some other areas of concern include the following:

- Poor map reading skills.
- Inability to adequately explain the interconnection or relationship between different physical features such as relief and drainage and the physical and human environment, specifically, how physical features may influence human settlements.
- Poor written language skills.
- Lack of knowledge of different data representation techniques.
- Lack of appropriate expansions or elaborations in describing items and giving reasons when explaining measures and processes. Many can identify, name and list factors, but often do not earn full marks because of a lack of appropriate elaboration and explanation.
- Many ignore the instructions given in the questions.

- Failure to provide specific examples when requested by the questions.

DETAILED COMMENTS

Paper 01 – Multiple Choice

This paper consisted of 60 multiple-choice questions that assessed all areas of the syllabus. Performance was generally satisfactory. The mean was 59 per cent compared with 57 per cent in 2017.

Paper 02 – Structured Response

Question 1

This question tested map reading skills. It was not generally well done, with just 0.48 per cent of candidates obtaining 20–25 marks. The majority, 68 per cent, scored 0–10 marks on this question out of the possible 25. The average score was 8.2 marks or approximately 33 per cent.

Part (a), which tested candidates' ability to give the six-figure grid reference of a feature on the map, was not well done. While approximately 75 per cent of candidates were able to correctly identify the grid square within which the feature was located, less than 50 per cent were able to correctly state the location as a six-figure grid reference. Candidates are also required to be accurate when calculating the correct fractions to give the six-figure reference in order to score full marks. Candidates need to be reminded that there should not be a space between the easting and northing values when giving a six-figure grid reference.

Part (b) was fairly well done. Approximately 80 per cent of the candidates were able to correctly use the key or legend to identify forest as the main land use. Part (c) was also satisfactorily completed as approximately 70 per cent of the candidates gave the correct compass direction.

Part (d) was generally well done with over 80 per cent of the candidates being able to correctly measure the bearing. Part (e) was fairly well done as approximately 70 per cent of candidates were able to correctly measure the required distance. Candidates must be reminded to indicate the unit of measure when giving distance.

Part (f) (i) was generally well done. Seventy-five per cent of candidates were able to correctly state the height. A few candidates, however, about three per cent, gave incomplete answers, as they failed to state the unit of measurement. In Part (f) (ii), the description of the slope was not well done. Too many candidates simply described the entire slope as being gentle. Candidates were expected to describe the change in the gradient of the slope, from being steep closer to the source, to being gentle, closer to the school. Part (f) (iii) was also poorly done, with less than 50 per cent of candidates giving the correct response. Many candidates gave mature as a response and some seemed unaware of the stages of a river.

Part (g) was the most misinterpreted question with less than ten per cent of candidates gaining full marks. A large percentage of candidates (over 60 per cent) seemed not to have understood the meaning of the term *site*, as common descriptions given by them included features of the town such as services provided, settlement patterns, roads, etc. A good description of the site of Berekua could have included the following points: the town is built on gently sloping land; it is on land that is well drained; it lies between two ravines; it is on the coast; it is located along a bay; and it is bordered by higher lands on the west, north and south.

In Part (h), while about 70 per cent of candidates were able to correctly identify a dispersed settlement, identification of the linear and nucleated settlements proved to be a little more difficult.

Part (i) was the most challenging for candidates. More than 25 per cent did not attempt an answer to this part of the question and less than five per cent scored full marks. Candidates failed to establish the relationships observed between the drainage of the map area and the relief features present. Many simply described characteristics of the drainage without explaining the role of the relief in shaping those characteristics. For example, radial drainage pattern was correctly identified by some candidates but most failed to explain that the radial pattern was a result of conical hills being present.

In Part (j), approximately 50 per cent of candidates were able to correctly state at least two ways in which the relief influenced settlements. Some candidates did not focus on the influence of relief but instead tried to explain the impact of other features such as roads, availability of water, farming, etc.

Question 2

This question tested candidates' ability to interpret a climograph, their knowledge of terms associated with weather and climate, temperature and rainfall characteristics of tropical marine climate, the contribution of water to the weathering of rock and the role of climate in the production of latosols.

The question was not generally well done, with just 0.97 per cent of candidates obtaining 20–25 marks. The majority, 71 per cent, scored 0–10 marks on this question out of the possible 25. The average score was 8.4 marks or approximately 34 per cent.

Part (a) was fairly well done. In Parts (a) (i) to (iv), most candidates were able to accurately read the climograph. Part (a) (v) asked candidates to interpret the temperature line graph. Many candidates were able to make an accurate observation. However, some confused the rainfall axis with the temperature axis.

In Part (b) (i), most candidates were able to correctly identify two elements of weather. Part (b) (ii) was fairly well answered. Candidates were able to correctly define climate with an emphasis on long-term atmospheric conditions.

Responses to Part (b) (iii) were generally unsatisfactory. The characteristics of rainfall and temperature for a tropical marine climate were very general, vague and not specific to the particular climate. Under rainfall, for example, candidates were expected to indicate that there is a distinct wet (June to November) and dry season (January to May) which varies according to the latitude or that rainfall is mainly relief and convectional rainfall. Under temperature, appropriate responses would have been high uniform temperatures throughout the year or temperature ranges from 25 °C to 35 °C.

Part (c) was fairly well done. Many responses included frost action and carbonation as processes which explained how water contributes to the weathering of rock. Some candidates were unable to fully explain these processes and only correctly identified the processes. Freeze thaw/frost shattering was also accepted as an appropriate response as it involved the action of water in the weathering of rocks.

Part (d) seemed to pose a great challenge to candidates. Many candidates did not answer this part of the question. Most candidates who attempted a response were unable to clearly explain the link between a particular climate characteristic with the production of latosols. For example, *The rate of chemical weathering in latosols is high due to heavy rainfall. Clay particles in the A horizon are broken down due to chemical weathering processes, transported and deposited in the B horizon. The rate of chemical weathering is high and it leads to the development of a thick layer of soil (20–30 m in depth).*

Question 3

This question tested candidates' ability to construct a bar graph, their knowledge of the physical factors in an area that affect population distribution, push and pull factors of migration, the consequences of out-migration on the Caribbean region and the physical and economic factors that may influence the development of agriculture in the Caribbean.

The question was attempted more satisfactorily than the other questions on Paper 02 with 8.6 per cent of the candidates obtaining 20–25 marks and 40.8 per cent scoring 0–10 marks. The mean score was 11.9 out of the possible 25 marks (48 per cent).

In Part (a), candidates performed well with about 60 per cent scoring full marks. The average score was four out of five marks. This part required candidates to construct a bar graph based on a data set. However, in constructing the bar graph some candidates drew the bars incorrectly. Similarly, other candidates failed to provide a proper title. The title was either vaguely stated or too generalized, for example, Bar graph showing immigrants in Caribbean countries rather than Bar graph showing Caribbean immigrants in selected Caribbean countries in 2016. Another too frequent error was that candidates constructed a histogram rather than a bar graph. Candidates must be reminded that a histogram is used to display continuous data that takes the form of class intervals while a bar graph is used for discrete data. In just a few cases, candidates incorrectly labelled the countries on the x-axis; this may have been out of haste and carelessness rather than a lack of understanding.

Part (b) was very well done as at least 85 per cent of the candidates were able to correctly outline two physical features which influence population distribution in the Caribbean. In

addition to providing the factors candidates were able to state how the features influenced population distribution. For example, one candidate wrote the following:

Relief of the land. In the Caribbean, the population density is greater in areas of low relief and areas of low, flat land. In these areas it is easier to construct homes and so infrastructural costs are lower, making it more appealing to live in low-relief areas.

The most common physical features given were relief, drainage, water supply, soil fertility and natural vegetation. A common mistake made by those candidates who got the question incorrect was that they gave features that were not physical in nature such as the presence of employment or the availability of social services and amenities. These features would be considered as economic/socio-economic.

Part (c) (i) was fairly well done. At least 70 per cent of candidates were able to correctly describe one push and one pull factor that has caused out-migration from the Caribbean since the 1990s. Among the common push factors identified were unemployment, crime, low standard of living and lack of educational opportunities. In a few instances candidates defined what a push and pull factor was rather than using that knowledge in the context of the question. Some candidates confused the two terms and gave a pull factor as the push factor and vice versa. Candidates needed to be very careful in the wording of their responses. Another error made by some candidates was that they did not address out-migration; their response was focused on migration to the region. For example, the following was given as a response to the pull factor:

There have been many employment opportunities available in different Caribbean countries. Some countries may have unemployment situations which may cause people to emigrate to countries that have employment opportunities.

Part (c) (ii) was not as well done as Part (c) (i). Less than 50 per cent of the candidates were able to score full marks on this question. In many instances candidates were challenged to come up with all three consequences. They either found themselves rephrasing the same point or they only gave a partial response. In a few cases they simply did not attempt this part of the question. One of the most common consequences identified by candidates was 'brain drain'; however, some candidates were incorrect in their explanation of 'brain drain'. Quite a few candidates stated that 'brain drain' is when people go away to study and do not return to their home country which is incorrect as the 'brain drain' is when educated, highly skilled and qualified people migrate from their home country. The vast majority of candidates did not provide examples as required in the question as they were to use examples in the explanation of each consequence.

Part (d) also proved to be very challenging. Very few candidates (less than one per cent) were able to score full marks on this question. While candidates were able to identify the physical and economic factors that can influence the development of agriculture in the Caribbean, they were not successful in developing the explanation of the factor. Most candidates failed to give a clear statement as to how the factors influence the development of agriculture which

was the crux of the question. Some candidates gave an economic or social factor where a physical factor was required. This part of the question required candidates to effectively or comprehensibly organize and communicate their knowledge and understanding which proved to be challenging for too many of the candidates.

Question 4

This question assessed candidates' knowledge and understanding of lines of latitude, atoll and fringing reefs, conditions necessary for coral growth, benefits of coral reefs and measures of environmental conservation.

The question was also not well done, with 4.0 per cent of the candidates obtaining 20–25 marks and 51.6 per cent scoring 0–10 marks. The mean score was 10.5 out of the possible 25 marks or 42 per cent.

In Part (a), it was apparent that candidates had forgotten what they were taught about lines of latitude. For Part (a) (i), most candidates were able to identify the equator, the Arctic Circle and the Antarctic Circle but the poor spelling of the words Arctic and Antarctic was most noticeable.

More than 80 per cent of the candidates were unable to identify the South Pole as 90 degrees South for Part (a) (ii). While a few were able to give the correct number of degrees, they were careless in not identifying North or South.

In Parts (b) (i) and (ii), many candidates could not identify the features of an atoll and a fringing reef. About 30 per cent of the candidates left this section blank; some were confused in their responses writing what pertained to atolls for fringing reefs and vice versa, while others gave non-physical features such as 'it is the home of coral and fish'.

In Part (b) (iii), most candidates were able to earn at least two out of the four marks for this section. They knew that clear water allowed sunlight to penetrate the water which the corals needed but often they did not state how the corals benefitted. An appropriate response would have been, therefore, that clear water ensures that sunlight can enter the water to keep the water warm; most corals need warm waters between 20° and 27° C to survive. Another problem in this part of the question was that some candidates misinterpreted 'clear water' for 'clean water' and went on to explain how pollution affected the corals.

More than 80 per cent of candidates earned marks in Part (c), which was generally well done. Candidates were able to adequately explain the ways in which coral reefs provide coastal protection, how they contribute to the build-up of raw materials for beaches and the ecological and economic benefits to be derived from coral reefs.

In Part (d), many candidates were aware of the content for this question as over 80 per cent were able to earn at least two out of the possible six marks. However, the answers lacked specificity about the types of measures which could be employed, for example, prohibition on fishing during closed season, establishment of marine reserves, establishment of safe catch limits and the banning of certain practices such as the use of dynamite and gill nets.

Paper 031 – School-Based Assessment

There is a need for greater guidance to be given to students in selecting topics for study as well as at all stages of the SBA project. The project is a teaching tool to help students to learn not only research techniques but to understand the environment. Many objectives in the syllabus, especially those in Natural Systems, are better understood through field studies. Too many studies were based on ‘perceptions’ of social or economic issues.

Students are reminded that the Strategy Sheet should be reviewed before the study is done to ensure that the strategy suits the aim.

Plagiarism is a serious problem that must be penalized at the school level. The Geography syllabus now allows a group to do the same field project and to submit it as a collaborative study.

Due care and attention should be given to the uploading of the sample. It is imperative that teachers and students follow the CXC guidelines for uploading the sample in order to minimize delays in the marking process.

Table of Contents

Too many students are losing this mark. Students must ensure that all pages are numbered consecutively in the report. The section headings are clearly outlined in the syllabus. Merely having a page called ‘Table of Contents’ does not earn the mark.

Introduction

The introduction should briefly state (i) why the study was conducted and (ii) the select area. Many students failed to meet both these requirements.

Aim of Study

There were too many broad aims as well as too many multiple aims that did not lend themselves to adequate data collection. The aim should include a small, delimited area of study (the spatial aspect) that is manageable and allows for the collection of primary data. The name of the territory must be included in the aim. The aim must be geographical and should be from an area included in the CSEC Geography syllabus. The spatial aspect of the feature or characteristic helps to make the study geographical. Students need to know the nature of a *geographical question* — What is it? Where is it? With what and how is it related in space and time? — and to demonstrate that in the aim. If it is the intention to make recommendations from the study, this must be said in the aim. Note, however, that such recommendations are not required in the current syllabus.

A good example of an aim would be *To assess the environmental problems experienced by persons residing in the squatting community of Libertville in East Trinidad*. A vague, non-geographical aim is ‘To investigate biodiversity in (named territory)’. Students are encouraged

to use verbs such as *assess*, *examine*, *evaluate*, *measure*, *analyse* and *discuss* in their aims or to pose a question to test an idea. This will help focus the work in the field.

Location of Study

There must be a map of the territory which clearly shows the location and the name of the study area. There should also be a site map which includes details of the site and immediate environs. Students must demonstrate in the site map how to access the study area. The site map is not an enlarged parish map. If the maps are electronically generated, they must show signs of being manipulated or altered so that they are relevant to the study. These maps must be drawn with due respect to map conventions (that is, a title, scale, north arrow, key and border should be included). At least the territory map must be drawn to scale. Labels should be printed and not in cursive script.

In light of the fact that all projects have to be submitted electronically, teachers should make a special effort to see how the maps look once they have been scanned. There were many instances of maps where features were unclear as the electronic reproduction was scanned poorly.

Methodology

There was an overreliance on questionnaires. Many studies which required observations and measurement in the field by candidates were inappropriately done via a questionnaire. Many questionnaires generated information that was *the perception* of the respondents. When the proper instrument of data collection is a questionnaire, the students should also include details that give the sample size and sampling method. A copy of the research instrument should be included in the appendix.

In describing the study area for the methodology, students should include the name of the study area, parish (if relevant) and territory.

In describing when the data collection occurred, students should include date, month and year. For example, 5 January 2018, between the hours of 10:00 a.m. and 3:00 p.m. at Site X, Parish/Town, Country C.

The study should have been completed within the two-year time period that reflects the timeframe during which the student was preparing for the examination.

Presentation of Data

Students should use at least two different types of appropriate illustrations, for example, tables, pie charts, bar graphs, line graphs, photographs, sketch maps and field sketches. Candidates should select the methods of presentation which are most appropriate for the type of study that was conducted.

Line graphs should only be used to show change over time. Pie charts should not be used to show one item with a value of 100 per cent. Photographs must be labelled and the axes of

graphs must also be labelled. All illustrations must be titled and numbered, for example, Figure 1: A table to show illustrations must be referred to in the text and appropriately distributed throughout the analysis. When the illustrations are done in a separate section, students do not score well on the integration component. Students should avoid using more than one type of illustration to represent the same data. Illustrations which are not referred to serve no purpose in the report. Students are reminded that no credit is given for illustrations copied from secondary sources.

Teachers should again review the scanned/electronically uploaded study to ensure that all illustrations have been clearly reproduced.

Quality of Data

The data collected must be relevant to the aim and must be comprehensive enough to draw reliable conclusions. Adequate and suitable field work must therefore be conducted in order for students to maximize their scores in this section. Too often, the data were either inappropriate or insufficient to achieve the aim of the study.

Analysis and Discussion

Many students merely described the data presented. Students must be encouraged to conduct an analysis of the data to identify patterns or trends or account for and give explanations clearly related to the aim of the study. Students should indicate whether their study supports textbook explanations, theories or models or seems to be an exception. In this section, reference should be made to the illustrations.

Conclusion

The conclusion answers the aim by presenting a summary of the data. There should be no new information presented in the conclusion. New information presented in the conclusion cannot be credited. Often students deviated from their aim by introducing recommendations which were not part of the aim of the study. The conclusion should simply state a brief synopsis of the findings and how they relate to the aim of the study.

Communication of Information

Students should pay attention to the correct use of the English Language. They must be encouraged to review and thoroughly edit their projects before submission in order to reduce the occurrence of spelling, grammatical and punctuation errors.

There was generally appropriate use of geographical terms.

Bibliography

Many students were unable to score the marks assigned here. They were expected to be able to place at least two sources in alphabetical order by author's surname in the bibliographic. Students must know and respect the convention for the sequencing of information and

punctuation in bibliographic entries. The list of resources in the syllabus uses the MLA (Modern Language Association) style and should be used as a model/guide. The MLA method of bibliographic referencing is the appropriate one for the project report.

Paper 032 – Alternative to School-Based Assessment

This paper is an alternative to the field study report and is usually done by candidates who are not attending an educational institution where they will have the benefit of a Geography teacher to provide the required guidance to complete the School-Based Assessment. It is designed to test the same skills demonstrated for the work in the field. It tests a candidate's knowledge of field research techniques, methods of presenting information and data, and the ability to summarize and analyse data obtained in the field.

It is clear that the majority of the candidates was not adequately conversant with these techniques and methods. Candidates should undertake field trips and practise writing field reports to be better equipped to deal with the questions posed in this paper.

The mean on the paper was 14.7 out of the possible 40 marks or 36.8 per cent. This was lower than in 2017 which had a mean of 19 or 47.67 per cent.

Question 1

Candidates were required to complete a sketch map by inserting the coastline between given eastings and northings along with a few selected features. This question was fairly well done, as many candidates were able to insert all the given features correctly. However, quite a few omitted the key. Some candidates were able to identify an area with cliffs but failed to realize that the question specified the cliffs on the south coast. A few had difficulty inserting the area of cultivation.

Question 2

In Part (a), candidates were to formulate a research question or hypothesis based on the task given in the question. Candidates performed poorly on this question and it was apparent that the vast majority did not know how to frame a research question or a hypothesis. A common response given was 'to investigate the characteristics of the valley and channel along a small river in my community', which would be more aligned to the aim of the study rather than being a research question or hypothesis. The task given had to be rephrased as a question that could guide the research. An acceptable research question for the task given would have been *to what extent do the river landforms and processes change as the Poole River flows downstream through Mayaro, Trinidad?* An acceptable hypothesis would have been *There are no significant changes in the valley and channel characteristics of the Poole River as it flows downstream through Mayaro, Trinidad.* Candidates were expected to name the river or community in their response.

In Part (b), candidates were asked to formulate a rationale for their study that would serve as the introduction. The rationale sets the basis or reason for conducting a particular study. The responses to this part were very poor and again reflected that the vast majority of candidates

did not know what a rationale was or how to write one. Many of the responses simply gave the aim of the study, 'to investigate the characteristics of the valley and channel in a small river in my community'. An acceptable rationale would have been *Geographers agree that rivers have three distinct stages. Each stage displays distinct characteristics such as landforms, processes, river velocity and depth. This study seeks to determine if this holds true for the Poole River as it flows downstream through the community of Mayaro, Trinidad.*

Question 3

Part (a) (i) proved to be very challenging as most candidates were unable to give the valley characteristics that they would record at each stage along the river. Few candidates obtained more than one mark out of the possible four marks for this section. It was apparent that the vast majority of candidates did not know this content. Many candidates gave characteristics of the river channel, with which they may have been more familiar, rather than characteristics of the valley. Candidates were expected to give responses such as the height, gradient/steepness, type, orientation, shape, etc.

In Part (a) (ii), a few candidates were able to list the items needed to measure stream velocity: measuring tape, stop-watch and a float. However, most candidates were only able to give one of the items.

Part (b) (i) was not well done as less than one per cent of the candidates gave a credible sampling technique as to how they would select the sites for investigation. Candidates were expected to reference at least one sampling technique such as random or point sampling.

Part (b) (ii) was fairly well done as over 75 per cent of the candidates were able to identify that they would need someone to help them hold the equipment (the measuring tape) and time the float when measuring stream velocity.

Part (b) (iii) was very well done as most candidates were able to indicate that they would record their data on paper and then enter this data on a computer or some electronic device. Some candidates indicated that they would record their data directly onto a tablet, which is acceptable.

In Part (b) (iv), candidates were to indicate the time when they would conduct the study and give a reason. This was successfully completed with most candidates giving the months for the dry season when river levels would be low and the slopes would be dry so it would be a less dangerous time to conduct the study. Candidates were not awarded full marks where their justification did not align with the time they proposed to conduct the study.

Most candidates ably answered Part (c) (i) that required them to identify problems that they may encounter when conducting the study. They highlighted bad weather conditions (heavy rain), challenging relief, inaccessible sites, high water levels, lack of help or assistance in the field.

Similarly, in Part (c) (ii), most candidates offered credible responses for the solutions to one of the problems stated in Part (c) (i). For instance, rescheduling the field work to another time

when it is safe, seeking assistance from relevant government ministries/workers or selecting different sites.

Question 4

In this question candidates were asked to analyse the data presented in a table. Performance on Part (a) (i) was very good. Most candidates (over 90 per cent) were able to identify that the channel was deepest at Site 5. Candidates experienced difficulty with Parts (a) (ii), (a) (iii) and Part (b).

In Part (a) (ii), less than five per cent of the candidates were able to accurately calculate the average speed of the river using the data in the table. Candidates were expected to divide the total speed or velocity of the 5 sites (52 cm/sec) and then divide by the number of sites (5): $52/5 = 10.4$ cm/sec.

Part (a) (iii) was also not well done, as in response to how the bed load size changed along the stream, most candidates indicated that it decreased or got smaller. However, they failed to give an answer that addressed *along* the stream. Candidates were expected to indicate, for example, that the bed load decreases rapidly the further away from the source or the bed load decreases rapidly from the upper to the lower course of the river. Some candidates misinterpreted the question and gave a response related to how the bed load shape changed along the river.

Part (b) proved to be one of the most difficult questions on the paper. There was a very high 'no response' rate for this question and what answers were provided were completely inaccurate. It would appear that, in general, candidates were not very knowledgeable or familiar with river processes. The following is an acceptable response regarding a reason for changes in two channel characteristics:

The increasing volume of water as a river moves downstream in the channel can affect the river velocity and the depth and width of the channel. Velocity increases as a river moves downstream. As the river flows downstream and more water is added to the channel via tributary rivers the volume of water increases and so does the velocity. As the volume of water increases the width and depth of the river also increases to accommodate the volume of water. The increasing mass of water is capable of causing more erosion, resulting in a wider, deeper river channel that allows water to flow more freely.

Question 5

In Part (a), candidates were asked to construct a pie chart using data presented in a table. Most candidates either misinterpreted the question or were unable to calculate the required segments correctly. In terms of the calculation, candidates were expected to calculate the percentage of each feature at Site 1 out of the total landforms at Site 1 (Total of 10 landforms), for example, Waterfalls = $2/10 \times 100 = 20\%$. With the percentage, candidates could then

calculate the degrees in the circle which is what was required to accurately draw the segments on the pie chart, for example, Waterfalls = 20 per cent of $360^\circ = 72^\circ$.

Some candidates failed to realize that they were only asked to show the percentages for waterfalls, interlocking spurs and potholes at Site 1 and instead attempted to construct a pie chart showing all five sites.

As with Part 4 (b), Part 5 (b) also proved to be a very difficult question for candidates to answer. There was a very high 'no response' rate for this question and what answers were provided were completely inaccurate. As previously identified, it appeared that candidates were not very knowledgeable or familiar with river processes. In explaining the geographical reasons for the location of the river landforms, candidates needed to properly understand (i) the stages of a river, (ii) the processes that occur along a river channel and (iii) the landforms produced by these processes. The following is an example of an acceptable response:

As a river moves through the upper course it cuts *downwards*. The gradient is steep and the river channel is narrow. Vertical erosion is dominant and leads to the formation of interlocking spurs, rapids, waterfalls and potholes. In the lower course of the river where the gradient is gentle, the river erodes laterally (lateral erosion). As the river erodes laterally to the right then the left, it leads to the development of meanders and are also associated with river cliffs and point bars. Periodic flooding of the lower course of the river results in the formation of levees and floodplains.

Part (c) was also not well done as many candidates gave implausible responses such as using a ruler, metre rule or measuring tape to determine the height at each site. Candidates were expected to give responses such as using the contour lines on a map or using a GPS app on a cell phone.

Question 6

This question focused on the bibliographic referencing of a book. This question was very poorly done. Less than one per cent of candidates were able to correctly reference the book using a conventional bibliographic style. While no specific style was given in the question, the list of resources contained in the CSEC Geography syllabus uses the MLA (Modern Language Association) style so this was the style most expected of candidates to use (Sealy, N. Geography for CSEC Examination, London: Macmillan Publishers, 2010). Candidates' responses reflected a complete lack of knowledge of any conventional bibliographic referencing styles such as the MLA, APA, Chicago Manual of Style or Harvard Referencing.

RECOMMENDATIONS

Since, Paper 02 now consists of only compulsory questions, it is critical that candidates know the content of the syllabus well. Too many of the responses demonstrated a lack of knowledge of aspects of the syllabus and of the ability to relate the knowledge acquired to the question. Candidates must develop a deeper understating of the interconnectedness

between the physical and human environment and they have to develop the ability to effectively communicate their understanding of these relationships.

The general impression was that candidates appeared to need more practice in map work. Teachers are urged to ensure that sufficient time is allocated for practical work so that skills for map work can be developed, especially since it is an integral part of the discipline.

- Teachers are encouraged to have students practice past map reading questions. This will certainly improve the performance on this question. More importantly, teachers should allocate adequate teaching time for map reading and practical/field activities.
- Teachers and students need to have access to maps. This is crucial for the development of map reading skills. This may necessitate the pooling of resources among Geography teachers. It is imperative that both teachers and students avail themselves of the different resources which are available from different sources such as workshops, online videos and tutorials.
- In terms of Paper 032, generally, candidates need more guidance on the requirements for that paper if they are to improve their performance. Candidates need to know how to conduct field work and prepare a report in order to achieve higher scores on this paper. The resources mentioned previously may prove very beneficial to Paper 032 candidates.
- Students should be given adequate practice in answering examination-type questions. Too many seem not to understand terms such as *list, describe, explain, account for* and *compare*.
- Students should be encouraged to express themselves in clear, Standard English and to avoid grammatical mistakes and misspellings.
- Candidates struggled with the higher order thinking skills required in some parts of the questions. Teachers must engage students in more critical verbal and written discussion and analyses of the topics on the syllabus. Candidates must be able to engage with the content on a higher cognitive level.

CARIBBEAN EXAMINATIONS COUNCIL

**REPORT ON CANDIDATES' WORK IN THE
CARIBBEAN SECONDARY EDUCATION CERTIFICATE[®]
EXAMINATION**

MAY/JUNE 2019

**GEOGRAPHY
GENERAL PROFICIENCY**

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GENERAL COMMENTS

This was the third year in which the new Geography syllabus and compulsory format of the examination was tested. There was noted improvement in candidate performance. A total 11,590 candidates sat CSEC® Geography, which is fairly consistent with the number of candidates who sat the examination in 2018. In general, there was improvement in candidates' performance when compared with 2018. The number of candidates achieving Grades I–III was 75 per cent, an improvement from 72 per cent in 2018. There was a slight increase in the number of candidates obtaining Grade I in 2019 — 11 per cent compared with 7.5 per cent in 2018.

The improvement in performance was most noticeable on Paper 01, the multiple choice, where the percentage of candidates obtaining Grade I increased from 16.7 per cent in 2018 to 27.5 per cent in 2019. The percentage of candidates achieving Grades I–III on this paper was 87.9 per cent compared with 83.7 per cent in 2018. The overall mean for the paper was 39.

Performance also improved on Paper 02. The number of candidates obtaining Grades I–III increased from 38.2 per cent in 2018 to 41.9 per cent in 2019, with 4.2 per cent of candidates achieving Grade I on Paper 02.

Candidates continue to find the physical geography components challenging as reflected in their performance on Question 2 of Paper 02. Performance was most outstanding in the Human Geography and Human Environment questions (Question 3), which had some exemplary responses, indicating that the questions were well within the capabilities of well-prepared candidates.

Candidates performed slightly better on the School-Based Assessment (SBA), with 95.7 per cent achieving Grades I–III compared with 94.6 per cent in 2018. More candidates obtained Grade I (47.3 per cent) on the SBA, an improvement over the previous year (41.4 per cent). While this indicates that better quality studies are being conducted and reported, some projects were still found to be not directly related to any objective in the syllabus.

In terms of performance by profile, there was a slight increase in scores across all profiles compared with 2018. The highest score obtained on Profile 1 (Practical Skills) was 60 out of a possible 60 marks; the average score was 38.27. On Profile 2 (Knowledge and Comprehension), the maximum score obtained by any candidate was 66.78 out of a possible 70 marks; the average score was 35. On Profile 3 (Use of Knowledge), the maximum score was 69 out of a possible 70 marks; the average score was 34.15.

The number of candidates achieving Grades I–III on Paper 032 increased significantly from 39.9 per cent in 2018 to 71.7 per cent in 2019. Compared to 2018 where no candidate was awarded Grade I on Paper 032, in 2019, 7.5 per cent of candidates obtained Grade I. The maximum score obtained was 38 out of a possible 40 marks compared with 29 out of 40 in 2018. The average score was 20.74. Primarily,

candidates' responses reflected a lack of understanding of how to undertake a research study and cite bibliographic references using an accepted referencing style.

Candidates' responses continue to show that there is a lack of knowledge and understanding of some basic geographical concepts and terms. This was sometimes reflected in their interpretation and response to questions.

As was stated in 2018, some areas, including the following, remain a cause for concern:

- Poor map-reading skills.
- Inability to adequately explain the interconnection or relationship between different physical features such as relief and drainage and the physical and human environment, specifically, how physical features may influence human settlements and functions.
- Poor written language skills.
- Lack of knowledge of different data representation techniques.
- Lack of appropriate explanations in describing items and giving reasons regarding factors, measures and processes. Many candidates can identify, name and list factors, but often do not earn full marks because of a lack of appropriate explanations.
- Many candidates ignore the instructions given in the questions or do not fully understand the behavioural verbs used in questions such as *compare, outline, discuss, assess*, etc.

DETAILED COMMENTS

Paper 01 — Multiple Choice

This paper consisted of 60 multiple-choice questions that assessed all areas of the syllabus. Performance was generally satisfactory. The mean of 63 per cent (average score of 37.7 out of 60) was comparable with that of 2018. The highest score was 59 out of a total of 60, compared with 57 out of 60 in 2018.

Paper 02 — Structured Response

This paper consisted of four compulsory questions, each assessing one of the major topics in the syllabus. Each question was worth 25 marks.

Question 1

This question tested map-reading skills. It was not generally well done, with just 0.20 per cent of candidates obtaining 20–25 marks. The majority of candidates, 84 per cent, scored 0 to 12 marks on this question out of a possible 25. The average score of 7.4 or 30 per cent was the lowest on the paper.

Part (a) (i), which tested candidates' ability to give the six-figure grid reference of a feature on the map, was poorly done. Approximately 70 per cent of candidates were able to correctly identify the location of the feature but failed to give the correct fractions for the easting and northing readings. Fewer than ten per cent of candidates had the northing reading before the easting reading. Fewer than 50 per cent of candidates correctly stated the location as a six-figure grid reference. Candidates are required to be accurate when calculating the correct fractions to give the six-figure reference, in order to score full marks. Candidates left spaces between the easting and northing values when giving the six-figure grid reference.

Part (a) (ii) required candidates to give the direction of an oilfield on a 16-point compass. This part was generally well done. About 67 per cent of candidates provided the correct answer. The incorrect responses included NW and NWN. There needs to be constant revision of these basic geographical skills.

Part (b) was fairly well done. Most candidates (70 per cent) were able to identify *forest* as a type of natural vegetation. However, more than 50 per cent of candidates gave a planted crop such as 'citrus' as another example of natural vegetation. In addition, 'forest plantation' was also frequently given as type of natural vegetation. This shows a lack of understanding of the concept of natural vegetation.

Part (c) was fairly well done, with about 65–75 per cent of candidates being able to correctly measure the bearing.

Part (d) was also fairly well done as approximately 70 per cent of candidates were able to correctly measure the required distance along the road. Improvement was noted in candidates' compliance with giving the answer in the unit stated.

Part (f) was poorly done as less than 50 per cent of candidates were able to correctly identify the three types of settlements found in each of the given grid squares. The responses given to this part were also plagued with the incorrect spelling of the terms *dispersed*, *linear* and *nucleated*. In particular, *nucleated* was referred to as 'nuclear'.

Part (g) was poorly done as well and was, by far, the question on which candidates performed the worst. Candidates were asked to state four characteristics of the drainage present in a given section of the map. Fewer than five per cent of candidates gained full marks on this part, with only approximately 50 per cent being able to give at least one correct statement. At least 50 per cent of candidates who attempted this part displayed a lack of understanding of the question. Candidates gave descriptions of unrelated features such as roads, settlements, farming, etc., further supporting the conclusion that they lacked the necessary understanding. In addition, about ten per cent of candidates misunderstood the use of the term *state* in the question, as they gave one-word answers for each of the four characteristics. The word *state*, as given in the syllabus, requires candidates to *provide a short concise answer without explanation or specify the facts of a case*. Clearly, this definition speaks to more than a one-word response.

Part (g) required candidates to outline three factors that may have influenced the distribution of rice cultivation in the area shown on the map. This part was fairly well done as at least 50 per cent of the candidates who attempted it were able to correctly identify at least two factors that would have influenced the distribution of rice cultivation. It is worth noting, however, that there was a misconception held by about ten per cent of candidates that a coastal location allows for the use of seawater for irrigation.

Question 2

This question tested candidates' knowledge of different plate boundaries and the landforms (intrusive and extrusive) and tectonic features associated with different boundaries. It was not done satisfactorily by many candidates. The mean score was 9.0 or 36 per cent. The majority of candidates, 77 per cent, scored marks from 0 to 13.

Part (a) was fairly well done. In Parts (a) (i) to (iv), more than 80 per cent of candidates correctly answered the questions based on the diagram. Part (a) (v) asked candidates to name one active volcano in the Caribbean. Many responses identified Kick 'em Jenny and La Soufriere. However, several candidates did not know one active volcano in the Caribbean.

In Part (b) (i), most candidates identified sills and dykes as intrusive features in the earth's crust and correctly described the direction in which they cool. On many occasions, candidates mixed up the description of sills with dykes and vice versa. For Part (b) (ii), more than 50 per cent of candidates were able to, in some form, correctly describe what happens when a continental plate meets an oceanic plate. Many responses were unable to receive maximum marks as they did not indicate which plate was denser and would subduct or the type of landforms/features found at the surface. For example, one response was as follows: 'When an oceanic plate meets a continental plate, the more dense oceanic plate goes on top of the continental plate weighing it down. The material from the continental plate is destroyed by the heat of the magma. After the oceanic plate overlaps the continental plate a fold mountain is formed'.

Based on the mark scheme, marks could not have been awarded for that description. The collision between oceanic and continental plates should have the oceanic plate going under the continental plate as the oceanic plate is denser. Identifying that *this type of collision forms a subduction zone* would have been awarded a mark or that *associated sea trenches were formed* would also be awarded a mark. Stating that *the descending plate melts as it enters the mantle* and the landforms that are associated with the collision of the plates would have ensured maximum marks.

In Part (c), some candidates were able to correctly state why the acid and basic lava cones have their particular shape by explaining the role of the silica content, viscosity and lava flows. Many responses only described the shape of the acid and basic lava cones and, as such, did not receive marks for this part of the question. For example, a candidate wrote that 'the basic lava cone is different from the acid lava cone because the basic lava is thinner and lighter and spreads quickly. The acid lava is thicker and moves slowly. The acid lava causes steep cones while the basic lava causes gently sloping'.

Candidates were awarded marks for explaining how the lavas' thickness and the flow give rise to the shapes. Candidates who provided a description of the shapes of the cones only were not awarded marks. If candidates had also explained how the silica content causes the difference in shape of the cones, they would have been awarded marks for this section of the question.

For Part (d), many candidates acquired marks for stating that convergent plates collided/moved towards each other. Many responses did not state that the types of plates were *two continental plates or continental and oceanic at the convergent boundary*.

For the transform boundary, many candidates received maximum marks for indicating that *two continental plates pass each other, friction prevents the plates from moving smoothly and this leads to the creation of earthquakes*. For example, the following was given as a response to this question:

Convergent Boundaries

Earthquakes occur along a convergent boundary when two plates come into contact. The pressure between them causes the earthquake.

Transform Boundaries

At the transform boundary, two continental plates move laterally, in the opposite direction. Friction between the two plates cause earthquakes.

Candidates' responses regarding the convergent boundary did not fully account for the movement or types of plates at the boundary. A full explanation of the how the pressure/friction can cause the earthquake was vague in multiple instances. One response stated: The movement of two colliding oceanic plates can cause earthquakes to occur. The denser oceanic plate sinks below the lighter one as they move towards each other. When this collision occurs significant energy is created in the subduction zone giving rise to a vibration that can cause an earthquake.

In this response the candidate indicated the types of plates, the type of movement and how the earthquake occurred from the movement. Although some candidates indicated the types of plates at a transform boundary, further clarification was necessary in order for them to acquire maximum marks.

Question 3

This question tested candidates' ability to read a population pyramid, their knowledge of the primary economic activities, the factors that have influenced migration from the Caribbean since the 1990s and the characteristics of small-scale farming compared to large-scale farming. It was attempted somewhat satisfactorily. The mean score was 11.19 or 45 per cent. The majority of candidates, 65 per cent, scored marks in the range 10–20.

In Part (a), candidates performed fairly well, with about 70 per cent scoring full marks. The average score was four out of five marks. The question required candidates to read the data presented in a population

pyramid. Most candidates were unable to state the range for each age group represented in the population pyramid. Many candidates gave a range of four years rather than five years, making the mistake of simply subtracting the upper age from the lower age in each range without counting the starting year in the cohort.

Part (b) (i) was very well done as at least 85 per cent of the candidates were able to correctly define *primary economic activities*. The two key elements in the definition were that *these activities are based on the extraction or exploitation of resources* and that *the resources being extracted are from the earth or are natural resources*. Some candidates were able to gain marks by stating that primary economic activities do not involve any processing or changing of the natural resource. For example, these two different but accurate responses were given by candidates:

- Primary economic activities deal with the extraction of natural resources.
- Primary economic activities are those which make direct use of the earth's natural resources. No processing takes place and the resource is only obtained. One example is fishing.

For Part (b) (ii), about 50 per cent of candidates were able to again gain full marks. The average score was approximately four out of six marks. The question required candidates to describe how the three given factors (economic, social and political) have influenced out-migration in the Caribbean since the 1990s. The vast majority of candidates did not make their responses specific to the period of time given (that is, since the 1990s), rather, candidates gave general responses as to what factors influence out-migration in the Caribbean. Nonetheless, candidates were awarded marks for identifying the factors and then giving a brief explanation of how the factors influenced or were linked to out-migration. For example, one candidate wrote the following:

- *Economic*

Due to economic factors, many Caribbean nationals have migrated. One such factor is employment. Many persons are either unemployed or receive low wages. Teachers and nurses are such persons. This causes them to not enjoy high standards of living in their home countries and so they migrate to places where high wages enable them to do so. Many University graduates find it hard to get jobs and migrate to places where they can do so. This leads to 'brain drain' in which skilled and educated persons are lost from the Caribbean.

- *Social*

Social factors have led to many persons migrating from the Caribbean. Such factors include limits in education and healthcare offered in the Caribbean. As it relates to education, course options are somewhat limited as certain courses such as specialized types of medicine are not offered and due to the few universities, there are limited places. Healthcare is limited as certain types of specialized surgery and treatment for certain diseases are not offered.

Candidates had the most difficulty describing how political factors have influenced out-migration. More than 80 per cent of them were awarded no marks for Part (b) (ii). Most candidates stated that people migrate from the Caribbean because they are unhappy with government decisions or governments are very corrupt. Expected responses were more in line with, for example, political instability as seen in Haiti, a lack of political freedom as experienced in Communist Cuba, political victimization from the ruling party as seen in Jamaica and Grenada, and the freedom of movement afforded citizens of dependencies of developed countries such as citizens of Puerto Rico being able to move to the United States and citizens of the British, French and Netherland overseas territories being able to move to Europe. For example, a candidate wrote the following:

In countries such as Haiti or Cuba, political strife and dictatorships have forced many to flee their home countries in search of a safe haven, free from the repression of their homeland. While most of these refugees go to neighbouring, less tyrannical countries, a significant portion leave the Caribbean altogether for countries such as the US, in search of asylum and the freedoms of such countries.

A few candidates seemed uncertain as to what factors would have been considered as economic and which were social; at times they confused the two. A lack of social facilities such as universities and hospitals would be considered social factors not economic, whereas a lack of employment opportunities would be an economic factor not a social one. Candidates need to be clear on this differentiation, especially when the question requires that their response be framed under specific headings, as was the case in Part (b) (ii). Some candidates missed one of the key words in the question, *out-migration*, and framed their response around factors that influence rural–urban migration; such a response could not have been awarded any marks. In a few cases, candidates simply did not attempt this part of Question 3.

Part (c) was fairly well done; at least 70 per cent of candidates were able to correctly compare small-scale and large-scale farming. The question was structured under four headings — Farm size, Farming Practices, Labour Supply and Technology. The average score on this part was approximately 8 out of 12 marks. This part of the question required candidates to effectively or comprehensibly organize and communicate their knowledge and understanding, which proved to be challenging for a few of them.

Under each factor, candidates had to clearly differentiate between the characteristics of a small-scale and large-scale farm and then present a brief examination of the differences identified between the two types of farms. For example, a candidate wrote the following:

Technology

In large-scale farming, machinery is used to plant the crops, to plough and for many other tasks. This is possible due to the flat terrain of the land. On the other hand, small-scale farmers use traditional tools such as forks to get the land ready and to farm. This is due to the steep, hilly terrain of the land which does not allow the large, heavy machines to

be used and also the income earned by these farmers makes these machinery too expensive. Manual labour is mostly used on small farms.

The heading *size of farm* was dealt with adequately by the majority of candidates. However, many candidates were unable to give an actual size (in hectares or acres) or range for the size of the different farms.

The heading *farming practices* gave candidates the most difficulty. It was clear that some candidates did not understand what was meant by farm practices and so they gave responses that were either very vague or related to technology, labour and income, for which they could not be awarded marks. For example, a candidate wrote the following: 'Large-scale farming tends to use advanced farming practices since these types of farmers would have the revenue and means to become educated and buy equipment to practice this. Small-scale farming would use simple farming practices which the farmers feel works best. Large-scale farmers may use fertilizers and chemicals when farming while small-scale farmers may use organic manure etc'.

In terms of *farming practices*, candidates were expected to discuss the methods applied or employed by farmers to produce their crops. For example, *large-scale farms practise fallowing and monoculture, whereas small-scale farms practise mixed cropping, mixed farming, inter-cropping and crop rotation.*

Labour supply was also dealt with adequately. The majority of candidates clearly understood that *on a large-scale farm there is typically a large labour force of skilled and unskilled hired workers whereas on a small-scale farm the labour force is very small, primarily consisting of the farmers, family members and maybe one or two hired workers who work seasonally or around harvesting time.*

With respect to *technology*, candidates were well able to discuss the use of technology on the two types of farms. They stressed the *heavy reliance on science and technology on large-scale farms, specifically the use of machinery and chemical fertilizers and pesticides, in contrast to the limited use of technology on small-scale farms, with heavy reliance on simple tools and natural fertilizers and forms of pest control.* However, very few candidates indicated that on a large-scale farm science is employed in the development of new varieties of plants and seeds to achieve higher yields or to make them disease/pest resistant.

Question 4

This question tested candidates' ability to read and interpret the information presented on a pie chart, in addition to their knowledge of the formation and benefits of coral reefs to coastal environments, the impact of agricultural activities on reefs and measures to ensure the sustainability of reef environments. In general, the question was done satisfactorily by many candidates. The mean score was 12.63 or 51 per cent. This question had the highest mean on the paper. The majority of candidates, 70 per cent, scored marks within the range 10–20.

In Parts (a) (i) to (iii), most candidates were able to accurately read the pie chart. For Part (a) (iv), many candidates gave feasible conclusions based on their interpretation of the pie chart. Part (b) (i) seemed to be challenging for candidates. Many candidates listed the correct conditions but did not expand on the description, in order to obtain maximum marks. Examples of such responses included the following:

- The coral reef needs warm temperature in order to survive.
- Clear, shallow water that allows for sunlight to get to the coral reefs for it to grow. The water depth average could be 30 metres for coral to grow.

More than 50 per cent of candidates identified warm temperatures as a condition but gave no description with respect to a specific temperature or temperature range in some cases, as is evident in the first example above. In cases such as those given in the examples, one mark was awarded for the condition. Maximum marks for this condition could have been awarded if the response had the optimum temperature range between 18 °C (64 °F) and 30 °C (86 °F). For the condition *clean, shallow water*, in the second example above, the response was awarded full marks as it indicated the average depth for the coral to grow.

Part (b) (ii) was fairly well done. More than 80 per cent of candidates were able to identify at least one way in which coral reefs protect coastal regions in the Caribbean. Some responses incorrectly identified the ocean as the coastal region and described how fish were protected. Such responses were not awarded marks. A few candidates did not attempt this part of the question. Examples of some responses included the following:

- Coral reefs act as a buffer zone for strong waves by reducing the intensity of the waves. The coastline is protected from the erosion that could occur because of these strong waves.
- Coral reefs provide shelter and security to small fish and other aquatic species from harmful organisms.

Many candidates correctly identified that coral reefs act as a buffer zone and reduce the intensity of the waves, as in the first example. The second example is incorrect and several candidates gave responses similar to it. Part (c) was fairly well answered. Responses correctly identified two ways agriculture contributes to coral reef degradation, with viable explanations. Some candidates indicated fishing as agriculture and thus were not awarded marks. Some typical responses included the following:

- Agriculture contributes to degradation in the Caribbean by its use of chemicals such as pesticides and weedicides on farms. The rain can cause excessive chemicals to run off into the ocean and kill the polyps and the coral reef can eventually die.
- Governments have stopped fishermen from harmful practices such as dynamite fishing on the coral reef.

Candidates, for the most part, correctly identified how excessive chemicals have a negative impact on coral reefs. Many responses further explained how the chemicals reached the coral reefs and what happens to the coral because of them. The response shown in the second example was awarded one mark. Many candidates identified the fishing technique but did not elaborate on how stopping these practices leads to the sustainability of the coral reefs.

In Part (d), more than 60 per cent of candidates were awarded high marks. The explanations, with reference to such measures as implementations of laws, public education, creation of marine protected areas and monitoring/controlling fishing activities, were clearly stated. Many of the responses, however, were too vague to be awarded a mark, for example, 'a region in Trinidad and Tobago'. Responses such as Nylon Pool, Tobago, would have been awarded a mark. Typical responses were as follows:

- In the Bahamas, the government has made some regions with coral reefs protected areas around the island.
- Governments have closely examined how waste is disposed of by cruise ships. The ships are not allowed to dump their sewage close to coral reef areas. This sewage is supposed to be treated before dumping into the ocean as well. Sewage contains a lot of toxins that can cause the bleaching of coral and also make the sea water dirty, making it hard for sunlight to reach the coral for them to grow. These ships may have to pay large fines if caught disposing of waste into the ocean.

Many candidates were able to identify the measures, as seen in the response above, but in some cases did not fully elaborate on one of the measures. The *protected area measure* should have been expanded on by outlining how *protecting the coral reefs ensures the sustainability of the reefs*. Some candidates incorrectly explained how fines on ships or land sources that dispose of sewage help the sustainability of coral reefs.

Paper 031 — School-Based Assessment

There is need for greater guidance to be given to students in selecting topics for study as well as at all stages of the SBA project. The project is a teaching tool to help students to learn not only research techniques but to understand the environment. Many objectives in the syllabus, especially those in Natural Systems, are better understood through field studies. Too many studies were based on 'perceptions' of social or economic issues.

Students and teachers are reminded that the strategy sheet should be reviewed before the study is done to ensure that the strategy suits the aim.

Plagiarism is a serious problem that must be caught and penalized at the school level. The Geography syllabus now allows a group to do the same field project and to submit it as a collaborative study. As such, students may be even more prone to collude and may try to mask their copied field reports by simply

changing a few words, the structure of their sentences or the colours in the graphs. Students need to be reminded that this is not acceptable.

Due care and attention should be given to the uploading of samples. It is imperative that teachers follow the CXC guidelines for uploading samples, in order to minimize delays in the marking process.

Table of Contents

Too many students are losing this mark, especially now that the samples are being presented electronically. Students must ensure that all pages are numbered consecutively in the report and that the section headings are clearly outlined as in the syllabus. Merely having a page called Table of Contents does not earn the mark.

Introduction

The introduction should briefly state *why the study was conducted* and *in the select area*. Many students failed to meet both these requirements.

Aim of Study

There were too many broad aims as well as too many multiple aims that did not lend themselves to adequate data collection.

The aim should include a small, delimited area of study (the spatial aspect) that is manageable and allows for the collection of primary data. The name of the territory must be included in the aim. The aim must be geographical and should be from an area included in the CSEC Geography syllabus.

The spatial aspect of the feature or characteristic helps to make the study geographical. Students need to know the nature of a *geographical question* — What is it? Where is it? With what and how is it related in space and time? — and demonstrate such usage in writing the aim. If it is the intention to make recommendations from the study, this must be said in the aim. Note, however, that such recommendations are not required in the current syllabus.

Location of Study

There must be a map of the territory which clearly shows the location and the name of the study area. There should also be a site map which includes details of the site and immediate environs. Students must demonstrate in the site map how to access the study area. The site map is not an enlarged parish map. If the maps are electronically generated, they must show signs of being manipulated or altered so that they are relevant to the study. These maps must be drawn with due respect to map conventions. The territory map, at least, must be drawn to scale.

In light of the fact that all projects have to be submitted electronically, teachers should make a special effort to see how the maps look once they have been scanned. There were many instances of maps where features were unclear as the electronic reproduction was scanned poorly.

Methodology

There was an overreliance on questionnaires. Many studies which required observations and measurement in the field by students were inappropriately done with questionnaires. Many questionnaires generated information that was *the perception* of the respondents. When the proper instrument of data collection is a questionnaire, students should also include details that give the sample size and sampling method. In some cases, observations, tests and measurements were listed in the methodology, but there was no evidence that such tests were done. Students should also be made aware of the relevant types of research methods suitable for the kind of study being undertaken.

In describing the study area for the methodology, students should include the name of the study area, parish, if relevant, and territory.

In describing when the data collection occurred, students should include date, month and year. The study should have been completed within a two-year time period that reflects the timeframe during which the student was preparing for the examination.

Presentation of Data

Students should make use of at least two different types of appropriate illustrations, for example, tables, pie charts, bar graphs, line graphs, photographs, sketch maps and field sketches in presenting the data.

In presenting the illustrations, students should observe the following conventions:

- Line graphs should only be used to show change over time.
- Pie charts should not be used to show one item with a value of 100 per cent.
- Photographs must be labelled and the axes of graphs must also be labelled.
- All illustrations must be titled and numbered, for example, Figure 1: Table to show ...
- Illustrations must be referred to in the text and appropriately distributed throughout the analysis.
- When the illustrations are done in a separate section, students do not score well on the integration component.
- Students should avoid using more than one type of illustration to represent the same data.
- Illustrations which are not referred to serve no purpose.

Teachers should again review the scanned/electronically uploaded study to ensure that all illustrations have been clearly reproduced.

Quality of Data

The data collected must be relevant to the aim and must be comprehensive enough to draw reliable conclusions. Adequate and suitable field work must therefore be conducted in order for students to maximize their scores in this section.

Analysis and Discussion

Many students merely described the data presented. There should be an analysis of the data to identify patterns or trends or to give explanations guided by the aim. Students should indicate whether their study supports textbook explanations, theories or models, or seems to be an exception. In this section, reference should be made to the illustrations.

Conclusion

The conclusion answers the aim by presenting a summary of the data. There should be no new information in the conclusion. New information presented in the conclusion cannot be credited. Often students deviated from their aim by introducing recommendations which were not part of the aim of the study. The conclusion should simply state a brief synopsis of the findings and how they relate to the aim of the study.

Communication of Information

Students should pay attention to the correct use of the English language. There was generally appropriate use of geographical terms.

Bibliography

Many students were unable to score the marks assigned here. They are expected to be able to place at least two sources in alphabetical order by author's surname in the bibliography. Students must know and respect the convention for the sequencing of information and punctuation in the entries in the bibliography. The list of resources in the syllabus uses the MLA (Modern Language Association) style and should be used as a model/guide. The MLA method of presentation is the appropriate one for the project report.

Paper 032 — Alternative to School-Based Assessment (SBA)

This paper is a substitute for the field study report and is usually done by candidates who are not attending an educational institution where they have the benefit of a Geography teacher to provide the required

guidance to complete the SBA. It is designed to test the same skills demonstrated in the work in the field. It tests candidates' knowledge of field research techniques, methods of presenting information and data, and their ability to summarize and analyse data obtained in the field.

While there was an improvement in performance compared with 2018, it is still apparent that the majority of candidates was not adequately conversant with research or field-based techniques and methods. Candidates should undertake field trips and practise writing field reports to be better equipped to deal with the questions posed in this paper.

The mean on the paper was 20.7 out of a possible 40 marks or 51.9 per cent. This was higher than in 2017 which had a mean of 14.7 or 36.8 per cent.

Question 1

Candidates were required to complete a sketch map by inserting an area under rice cultivation, the forest in a given grid square, the linear settlement along the third-class road in a given grid square, and the area of sugar cane cultivation. The question was fairly well done as many candidates were able to insert all the given features correctly. However, quite a few candidates omitted the key. Some candidates were able to identify an area with forest and linear settlements but failed to realize that the question specified the grid square within which these features were to be located. A few candidates had difficulty inserting an area under rice cultivation as they read the key incorrectly and gave another type of vegetation (for example, swamp and vegetable garden) rather than rice.

Question 2

In Part (a), candidates were to formulate a research question or hypothesis based on the task given in the question. Candidates performed poorly on this question and it was apparent that the vast majority did not know how to frame a research question or a hypothesis. A common response given was 'to investigate farming characteristics in a rural community', which would be more aligned to the aim of the study rather than a research question or hypothesis. The task given had to be rephrased as a question that could guide the research. The following would have been an acceptable research question for the task given: *Are there any significant differences between the characteristics of small-scale and large-scale farming that may affect farm productivity and efficiency in the farming communities of Aranguez, Trinidad?* Candidates were expected to name a community in their response. The vast majority of candidates (greater than 95 per cent) failed to do so.

In Part (b), candidates were asked to suggest a reason for studying the farming characteristics in the community they selected. This reason or rationale for their study would serve as the introduction. The reason or rationale sets the basis or reason for conducting a particular study. The responses to this part were very poor and again reflected that the vast majority of candidates did not know what was a rationale or how to write one. Many of the responses simply gave the aim of the study, 'to investigate the characteristics of farming in a rural community'. The following would have been an acceptable reason:

- It is widely believed that large-scale farms are heavily mechanized and make frequent use of science and technological advancements whereas small-scale farms are backward and heavily rely on simple tools.
- This infusion of technology is believed to make large-scale farms more efficient and productive than small-scale farms. This study, therefore, aims to investigate what are the different farming characteristics on the two different types of farms that may affect their productivity and efficiency.

Question 3

Part (a) required candidates to list six characteristics they would investigate. This part was very well done. At least 90 per cent of candidates who attempted this question were able to give four out of six characteristics. A few candidates gave responses such as 'humidity', 'sunlight' and 'rock type' which are not considered characteristics of farming. Candidates were expected to give responses such as *location, crops cultivated, size of the plot, source of labour, use of technology, water consumption, markets for the crops, etc.*

Part (b) (i) was very poorly done. Very few candidates (fewer than one per cent) were able to give a method that they would use to select the sample of farms for their field study. Where candidates responded correctly, the common response was *simple random sampling*. However, *purposive or convenience sampling* would have also been appropriate.

Part (b) (ii) was done satisfactorily as just about 50 per cent of candidates were able to identify one data collection instrument that they would use to collect data for their study. Most candidates gave a questionnaire, interview or observation checklist. Where responses were inaccurate, candidates identified things like a pencil and paper, camera, recorder, tablet and other pieces of electronic equipment.

Part (b) (iii) was also done satisfactorily with just about 50 per cent of candidates being able to identify one piece of equipment that they would likely use in conducting the field study. Candidates gave equipment such as a *camera, tablet* and *voice recorder*. Unacceptable responses included 'paper, pencil, pen, ruler, notebook'.

Part (b) (iv) was done very poorly. Most candidates who were awarded marks were only able to obtain one out of the possible three marks for this part. Candidates were required to describe how they would collect data during the investigation. The major problem was that candidates did not provide a possible sequence of steps in their data collection process. Most candidates simply stated that they would interview the farmers or that they would administer a questionnaire, without any mention of the steps before or after administering the instrument. A possible response could be any of the following:

- Get access to farmers, especially those who live in remote areas.
- Make appointment with farmers and residents.
- Prepare research instruments.
- Visit at any time that appears convenient to the residents/farmer.

Most candidates ably answered Part (c) (i) that required them to identify two possible problems that they may encounter when they approach farmers to collect data. They highlighted problems such as the *unwillingness of farmers to cooperate; farmers' suspicion as to the motives behind the study; farmers being unable to read or understand the questions and thus not being able to complete the questionnaire themselves; farmers minimizing the situation/exaggerating information hoping to get assistance; sexual advances; hostility from farmers or workers; attacks from farm animals and farmers having poor records thereby being unable to provide the data needed.*

Similarly, in Part (c) (ii), most candidates offered credible responses for the solutions to each of the problems stated in Part (c) (i). For example, responses included *get an extension office to introduce them to the farmers; outline the purpose of the research to the farmers; read the questionnaire to farmers and record their responses; get someone to accompany them in the field; have some form of school ID to show you are a student.* Where candidates failed to obtain the two marks, it was mainly because they did not respond to the question or only gave one solution.

Question 4

In this question, candidates were asked to analyse the data presented in a table. The table showed the results of a study on the challenges faced by 50 farmers in a rural community in the Caribbean. Candidates performed very well in Part (a). Most of them (over 90 per cent) were able to identify that the presence of pests was the problem faced by the highest number of farmers.

Most candidates did not attempt Part (b) and it proved to be challenging for many who attempted it. Candidates were required to outline two likely reasons for the differences in the problems faced by large and small farmers. In order to provide an accurate response to this part, candidates had to know and understand the differences in the characteristics of small-scale and large-scale farming. It was apparent that this knowledge and understanding was lacking. Acceptable responses to this part include the following:

- Soil erosion is a major problem for small farmers as they occupy marginal hillside lands while large farms occupy the valleys and coastal plains.
- Drought may be a problem on large farms as they are on the plains and flat lands that get less rain, while small farms are on the hillsides where they are more prone to receive relief rainfall.
- Markets are bigger problems for small farmers due to small, irregular outputs so they cannot fulfil the demand of large markets, while large farmers mostly produce for large, secure external

markets. Large farmers produce more crops so they can sell at a cheaper rate and command more markets, while small farmers have high costs of production and so need to sell at a higher price.

- Large farms can afford to purchase pesticides to control pests while small farms are not able to purchase pesticides, so they will have more problems with pest control.

Question 5

The parts of this question were based on the data presented in a table. The table showed the sources and nature of assistance received by banana farmers following the impact of a storm. In Part (a), candidates were asked to construct a bar graph to show the sources of assistance received by large farmers and to label the vertical axis. Many candidates were unable to get maximum marks on this part. There were too many instances where candidates misinterpreted the question, drew the wrong graph or were unable to accurately label the vertical or Y axis.

Many candidates failed to realize that they were only asked to show the sources of assistance and instead constructed double bar graphs to show the sources and nature of assistance. Some candidate constructed a histogram, which further indicated the importance of candidates being able to differentiate and construct the different graphical representations commonly used to display data. The vertical axis represented the number of farmers assisted or number of farmers receiving assistance. However, more than 95 per cent of candidates got the labelling incorrect because they gave responses such as number of farmers, number of farms, assistance given, with no clear label as to what was being shown on the vertical axis.

Like Part 4 (b), Part 5 (b) proved to be a challenging question for candidates to answer. Many candidates provided no response and what answers were provided lacked substance. The majority of candidates who offered a response to this part simply read or described the information provided in the table without actually providing any comments on the sources and nature of assistance which the banana farmers received following the storm.

Typical responses given by candidates included the following:

- Ten large farms and four small farms received assistance from crop insurance in the form of money.
- Ten large farms and seven small farms received input from the government.
- Two large farms and six small farms received assistance from family friends in the form of money.
- An equal number of large and small farms received assistance from credit unions in the form of loans.

These responses are a direct reading of the information presented in the table. However, acceptable responses would have taken the following form:

- Small farmers relied more on monetary assistance from family and friends than large farms. Large farmers are more able to afford crop insurance so they received more assistance from this source. This is likely to allow them to rehabilitate their farms more quickly than small farmers as they would have the financial resources to, for example, pay workers and purchase inputs.
- Interestingly, large farmers received more government assistance than small farmers. This may be a result of the close ties large farmers have with government agencies as large farms contribute most to the export market and therefore attract more assistance.
- An equal number of large-scale and small scale farmers were assisted by the credit unions as credit unions will be fair in how they give money and they lend based on the amount of savings in farmers' accounts and their ability to repay their loans.

Question 6

This question focused on the bibliographic referencing of a book. It was very poorly done. Fewer than one per cent of candidates correctly referenced the book using a conventional bibliographic style. While no specific style was given in the question, the list of resources contained in the CSEC Geography syllabus uses the MLA (Modern Language Association) style, so this was the style most expected of candidates to use: Sealy, N. Geography for CSEC Examinations, London: Macmillan Caribbean Education Publishers, 2010. Candidates' responses reflected a complete lack of knowledge of any conventional bibliographic referencing styles such as the MLA, APA or Chicago Manual of Style.

RECOMMENDATIONS

- Since, Paper 02 consists of only compulsory questions, it is critical that candidates know the content of the syllabus well. Too many of the responses demonstrated a lack of knowledge of aspects of the syllabus and an inability to relate the knowledge acquired to questions. Candidates must develop a deeper understanding of the interconnection between the physical and human environment and they have to develop the ability to effectively communicate their understanding of these relationships.
- The general impression was that students appeared to need more practice in map work. Teachers are urged to ensure that sufficient time is allocated for practical work so that map work skills can be developed, especially since it is an integral part of the discipline. However, it is also important that map skills be integrated into the teaching of the content areas so that students learn how to integrate and apply their map-reading skills to other geographical concepts and real-life scenarios. When students' map-reading skills are developed within context, they will also be able to better see the relationships between map-reading and the physical and human environment.
- Teachers are encouraged to have students practise map-reading skills. This will certainly improve performance on the map-reading question. More importantly, teachers should allocate adequate teaching time for map-reading and practical/field activities.

- Teachers and students need to have access to maps. This is crucial for the development of map-reading skills. This may necessitate the pooling of resources among Geography teachers. Teachers' workshops on the teaching of map skills can also help in this regard. Online video tutorials on the teaching of map-reading, research and field work skills should be produced by teachers and shared in an open platform with other teachers and students so that both teachers and students can readily have access to exemplary practices and guides.
- Study guides, workbooks and model answers that focus on the interpretation of the relationships between physical features (for example, relief and drainage) and land use or other human activities need to be produced and made available to help improve performance in Profile 3.
- Online writing sessions, targeting students, can provide instruction and practice on how to better structure coherent responses that display understanding of the behavioural verbs (*compare, explain, discuss* etc.) used in questions.
- Candidates must also keep abreast of current economic, social, political and environmental issues occurring in the different territories of the region. Their ability to use recent, topical examples will greatly enhance their responses and in some cases may result in more marks being awarded for a response.
- In terms of Paper 032, generally, candidates need more guidance on the requirements of the paper if they are to improve their performance. Candidates need to know how to conduct field work and prepare a report in order to achieve higher scores on the paper. The resources mentioned previously may prove very beneficial to Paper 032 candidates.
- Candidates should be given adequate practice in answering examination-type questions. Too many seemed not to understand terms such as *list, describe, explain, account for* and *compare*.
- Candidates should be encouraged to express themselves in clear, Standard English and to avoid grammatical errors and misspellings. Candidates must also be mindful of their penmanship. It is difficult to grade a script that is, for the most part, illegible.
- Candidates struggled with the higher order thinking skills required in some parts of questions. Teachers must engage their students in more critical verbal and written discussions and analyses of the topics on the syllabus. Candidates must be able to engage with the content on a higher cognitive level.