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FORM TP 2010075

MAY/JUNE 2010

CARIBBEAN EXAMINATIONS COUNCIL

SECONDARY EDUCATION CERTIFICATE EXAMINATION

GEOGRAPHY

Paper 02 – General Proficiency

2 1/2 hours

26 MAY 2010 (p.m.)

READ THE FOLLOWING INSTRUCTIONS CAREFULLY.

1. This paper consists of **TEN** questions in **FOUR** sections.
2. Section A consists of **ONE compulsory** question. EACH of Sections B, C and D consists of **THREE** questions.
3. Candidates **MUST** answer **FOUR** questions: Question 1 from Section A and **ONE** question from **EACH** of Sections B, C and D.
4. Begin **EACH** answer on a new page.
5. Credit will be given for the use of relevant sketch maps and diagrams.
6. The use of non-programmable calculators is permitted.
7. The use of geometrical instruments is permitted.
8. Write all of your responses in the answer booklet provided unless otherwise stated in the question. **ALL** inserts used **MUST** be fastened securely to your answer booklet.

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

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SECTION A (Mapwork)

Candidates MUST attempt this question.

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

(a) State the six-figure grid reference of the Police Station in the village of Soufrière. **(2 marks)**

(b) What is the direction of the NEAREST school from the Police Station in the village of Soufrière? **(1 mark)**

(c) What is the bearing of the minor trigonometrical station, TR 10 (near Easting 68), at Morne Patates from the NEAREST school? **(2 marks)**

(d) What is the distance, in a straight line, between the school and the minor trigonometrical station at Morne Patates (to the NEAREST 100 metres)? **(2 marks)**

(e) What is the gradient from the trigonometrical station at Morne Patates to the coast, given that the distance to the coast is 1 815 feet? **(3 marks)**

(f) List FOUR services provided to the village of Berekua (near Easting 72). **(4 marks)**

(g) Describe the drainage in the area between Eastings 66 and 69. **(4 marks)**

(h) Describe the site of the town of Pointe Michel. **(4 marks)**

(i) Account for the distribution of agriculture in the area between Eastings 66 and 69. **(6 marks)**

Total 28 marks

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SECTION B (Natural Systems)

Answer ONE question from this section.

2. (a) Study Figures 1 and 2, which show the global distribution of tectonic plates and of active volcanoes respectively, and answer the questions that follow.

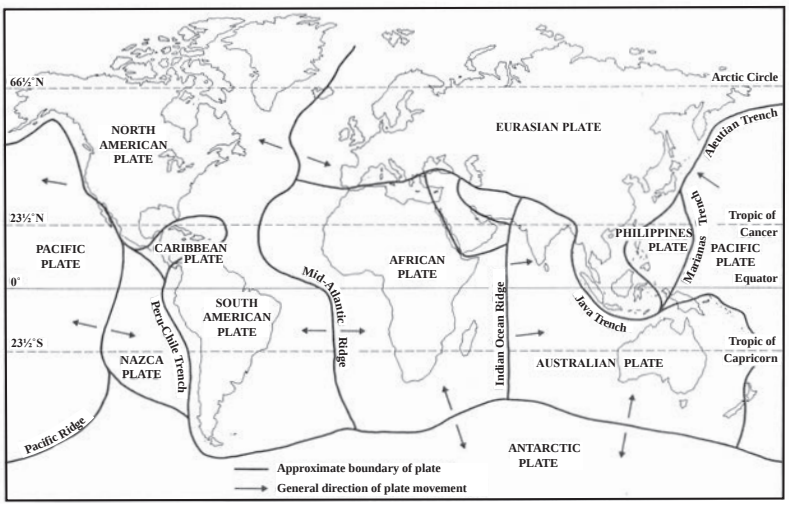


Figure 1. The global distribution of main tectonic plates

(Source: London and Senior, Principles of Geography for CXC, Longman, 2001, p.18)

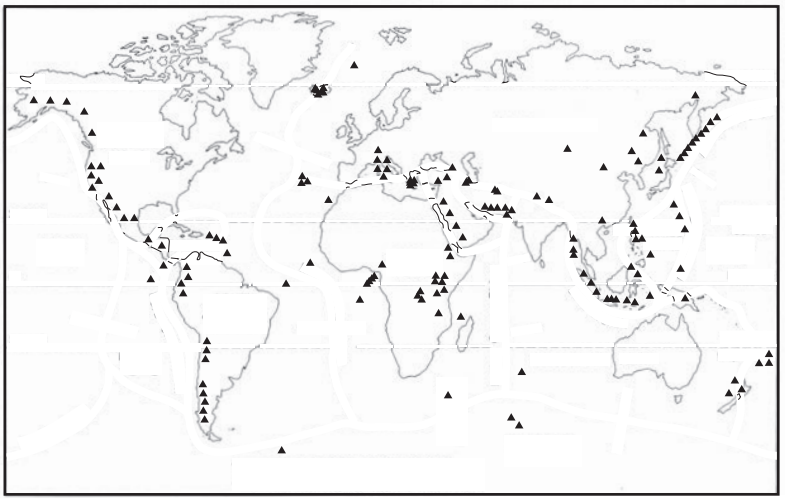


Figure 2. The global distribution of active volcanoes

(Source: Nagle, Hazards, Nelson, 1998, p.24)

(i) Name the continent with no active volcanoes. **(1 mark)**

(ii) How many active volcanoes are in South America? **(1 mark)**

(iii) State ONE difference between the distribution of volcanoes in North America and Africa. **(1 mark)**

(iv) How is the distribution of volcanoes related to plate boundaries? **(1 mark)**

GO ON TO THE NEXT PAGE

(b) (i) With the aid of a diagram, describe the MAIN features of the trellis drainage pattern. **(4 marks)**

(ii) Describe TWO ways in which rivers transport their load. **(4 marks)**

(c) (i) Explain how volcanoes are formed at convergent plate boundaries. **(6 marks)**

(ii) Account for the formation of fold mountains at

a) collision zones **(3 marks)**

b) subduction zones. **(3 marks)**

(Include examples in your answer.)

Total 24 marks

3. (a) Draw a well-labelled diagram of the water cycle. **(4 marks)**

(b) Describe FOUR processes of coastal erosion. **(8 marks)**

(c) (i) With the aid of a diagram, explain how bay-head beaches are formed. **(6 marks)**

(ii) Explain how river cliffs and slip-off slopes are formed at meanders. **(6 marks)**

Total 24 marks

4. (a) Draw a cross section of a hurricane to illustrate its structure. **(4 marks)**

(b) Describe FOUR layers of vegetation in tropical rainforests. **(8 marks)**

(c) With the aid of a diagram, explain how rain shadow areas develop. **(8 marks)**

(d) Explain why the temperature is usually much lower on the summit of a mountain than the surrounding lowlands. **(4 marks)**

Total 24 marks

SECTION C (Human Systems)

Answer ONE question from this section.

5. (a) Study Table 1, which shows the population and growth rate of parishes in Jamaica, and answer the questions that follow.

TABLE 1: JAMAICA'S POPULATION AND GROWTH RATE BY PARISH (1992 AND 2001)

Parish	1992	2001	Growth Rate (%)
St. Andrew	549 900	554 200	0.8
Clarendon	213 000	236 200	10.9
Manchester	163 000	185 300	13.7
St. Elizabeth	143 000	145 900	2.0
Westmoreland	128 000	138 500	8.2
Hanover	66 000	66 800	1.2
St. James	155 000	174 600	12.6
Portland	75 800	80 000	

(i) Name the parish which had the HIGHEST growth rate. **(1 mark)**

(ii) Name ONE parish that had growth of less than 2%. **(1 mark)**

(iii) Calculate the growth in Portland as a percentage. **(1 mark)**

(iv) Which parish had a population increase of less than one thousand persons? **(1 mark)**

(b) Describe THREE problems of urbanisation in the Caribbean. **(6 marks)**

(c) State TWO factors which influence population growth. **(2 marks)**

(d) Give SIX reasons why people often move from rural areas to cities. **(12 marks)**

Total 24 marks

6. (a) Study Figure 3, which shows apparel exports from Jamaica to the USA and to all other markets for the period 1995 – 2005, and answer the questions that follow.

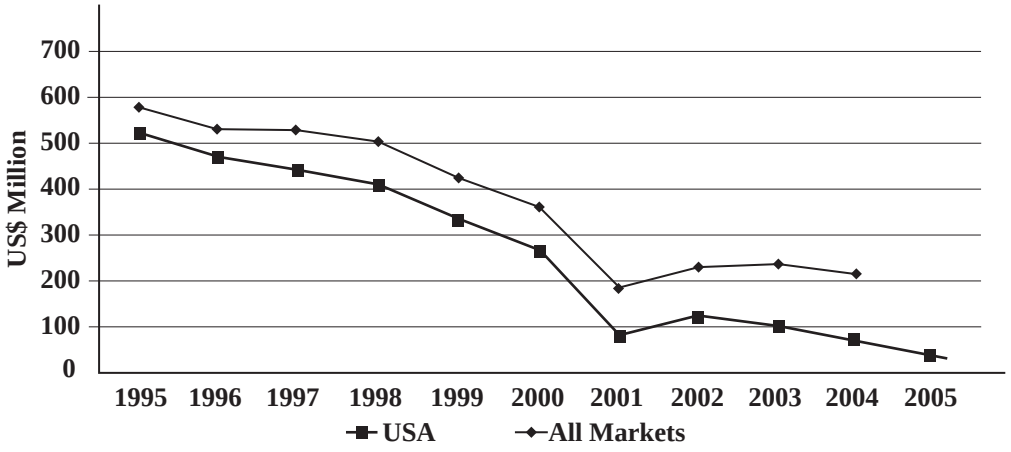


Figure 3. Apparel exports, 1995 – 2005

(Source: Economic and Social Survey, Jamaica, 2005, Sec 12.6)

(i) What is the trend in apparel exports over the period 1995 – 2005?
(1 mark)

(ii) What was the APPROXIMATE value of exports to the USA in 1996?
(1 mark)

(iii) What is the value of exports to OTHER countries (excluding the USA) in 1998?
(1 mark)

(iv) For exports to the USA, how many years had a value of 100 million or less?
(1 mark)

(b) (i) Name and give an example of TWO types of economic activities in the Caribbean.
(2 marks)

(ii) For a **named** Caribbean country, describe TWO factors which influence the location of a specific type of economic activity. **(6 marks)**

(iii) For the economic activity identified in (b) (ii), explain TWO challenges it faces.
(4 marks)

(c) For EITHER food processing OR garment manufacturing, explain how the development of the industry in BOTH a **named** Caribbean country and EITHER Singapore OR Hong Kong is influenced by ANY TWO of the following:

(i) Labour

(ii) Raw materials

(iii) Market **(8 marks)**

Total 24 marks

7. (a) Study Table 2, which shows the production of selected crops for 2002 – 2004 in Jamaica, and answer the questions that follow.

TABLE 2: PRODUCTION OF SELECTED CROPS ('000 Tonnes)

Crops	2002	2003	2004
Bananas	39.99	39.94	27.66
Citrus	136.74	140.12	131.36
Coffee	16.20	14.14	16.46
Coconut	15.5	17.37	16.64
Sugar Cane	1 965.5	1 775.7	1 193.1

(Source: Economic and Social Survey, Jamaica, 2005)

(i) Which crop shows the HIGHEST production? **(1 mark)**

(ii) Name the crop for which production INCREASED between 2003 and 2004. **(1 mark)**

(iii) For which crop did production DECLINE the most between 2002 and 2004? **(1 mark)**

(iv) Name the crop for which production increased and then fell below the 2002 level. **(1 mark)**

(b) Describe FOUR characteristics of peasant farming in the Caribbean. **(8 marks)**

(c) Explain THREE ways in which the role of commercial arable farming in a **named** Caribbean country has changed. **(6 marks)**

(d) Carefully explain how farming in the Caribbean differs from that in the Prairies of Canada. Include TWO differences in your answer. **(6 marks)**

Total 24 marks

SECTION D (Human – Environment Systems)

Answer ONE question from this section.

8. (a) Study Figure 4, which shows the effects of a natural hazard, and answer the questions that follow.



Figure 4. Effects of a natural hazard

(Source: Jamaica Foundation, Disaster Preparedness, Jamaica, 1990, p.18)

(i) Name the event that affected the area. **(1 mark)**

(ii) List THREE effects of the event on the area. **(3 marks)**

(b) (i) Define the term 'natural hazard'. **(2 marks)**

(ii) Describe THREE measures that an individual or community can take to reduce the effects of a **named** natural hazard. **(6 marks)**

(c) (i) For a **named** Caribbean country, explain TWO responses at the national level that have been used to alleviate the damage caused by a specific natural hazard. **(6 marks)**

(ii) Explain how regional agencies assist Caribbean countries in disaster preparedness and response. Include TWO ways in your answer. **(6 marks)**

Total 24 marks

9. (a) Study Table 3, which shows the solid waste production, waste water treatment and garbage collection of selected cities, and answer the questions that follow.

TABLE 3: SOLID WASTE PRODUCTION IN SELECTED CITIES

Cities	Solid Waste per Capita (kg/year)	Waste Water Treated (%)	Household with Garbage Collection (%)
Brasilia	182	54	95
Havana	584	100	100
La Paz	182	0	92
San Salvador	328	2	46
Santiago	182	5	57
Toronto	511	100	100

(Source: Habitat 1997 (in Geo 2000))

(i) Name the cities with the same per capita solid waste production. **(1 mark)**

(ii) Which city had the LOWEST percentage of household waste collection? **(1 mark)**

(iii) **An insert, Figure 5, is provided for this question.** Complete the bar graph in Figure 5 to show the data for waste water treated. **(2 marks)**

(b) (i) With reference to examples, give the meaning of 'air pollution' and 'land pollution'. **(4 marks)**

(ii) Describe TWO measures that have been implemented by Caribbean countries to reduce the emission of aerosols. **(4 marks)**

(c) Explain how deforestation affects the environment in the Caribbean. Include FOUR effects in your answer. **(12 marks)**

Total 24 marks

10. (a) Figure 6 (**provided as an insert**) shows TWO imaginary coral islands.

(i) On the figure, shade the areas of BOTH islands which would be flooded if the sea level rose 30 cm. **(2 marks)**

(ii) With reference to Figure 6, list TWO effects of the rise in sea level on the people who live on these islands. **(2 marks)**

(b) Discuss TWO causes and TWO consequences of global warming. **(8 marks)**

(c) Explain how coral reefs in the Caribbean are destroyed. Include SIX different ways in your answer. **(12 marks)**

Total 24 marks

END OF TEST

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
HEADQUARTERS

GEOGRAPHY

Paper 02 – General Proficiency

Graph Paper for Question 9 (a) (iii)

Centre Number.....

Candidate's Number.....

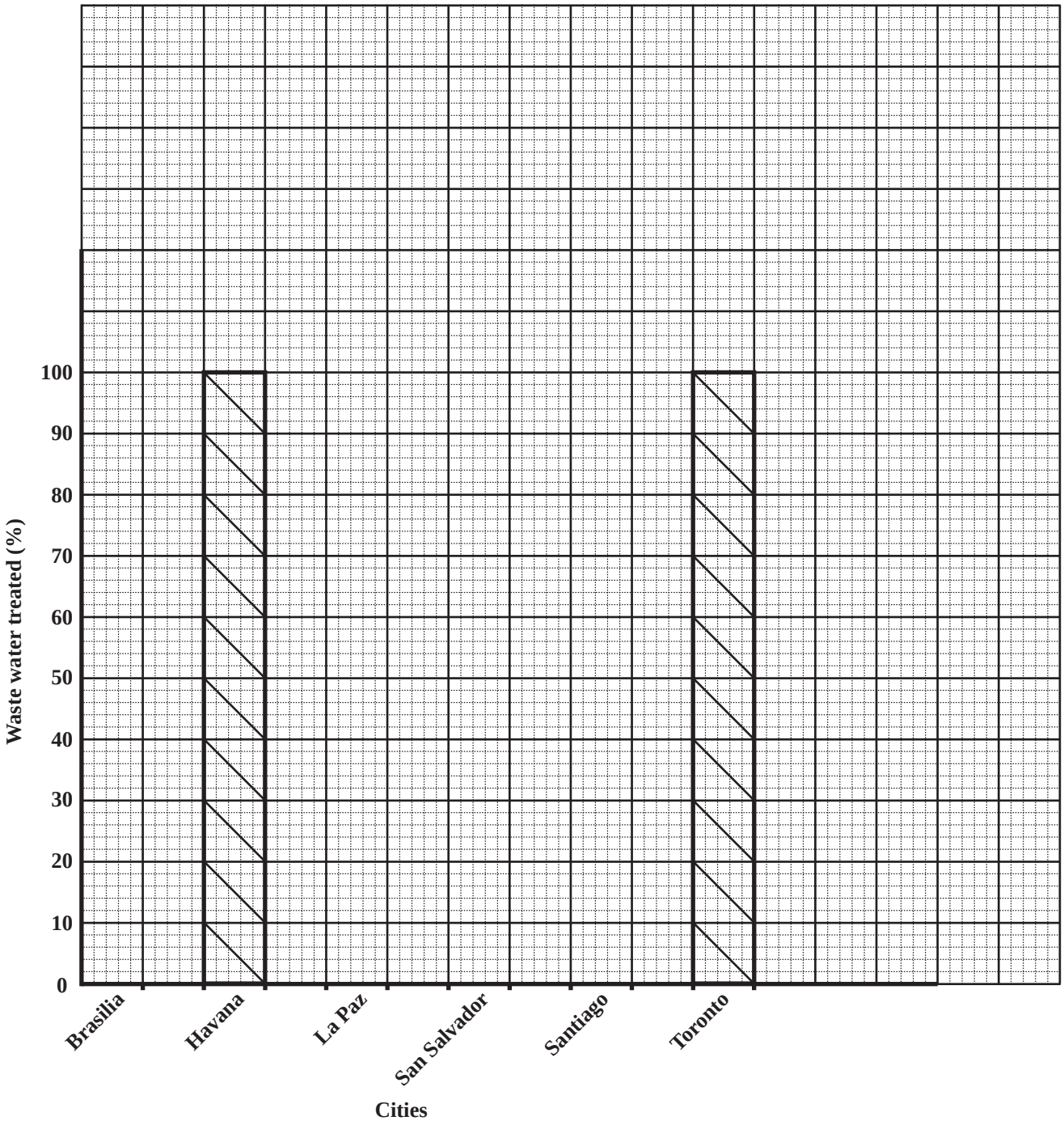


Figure 5. Bar graph

TO BE ATTACHED TO YOUR ANSWER BOOKLET

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
HEADQUARTERS

GEOGRAPHY

Paper 02 – General Proficiency

Figure 6 for Question 10 (a)

Centre Number.....

Candidate's Number.....

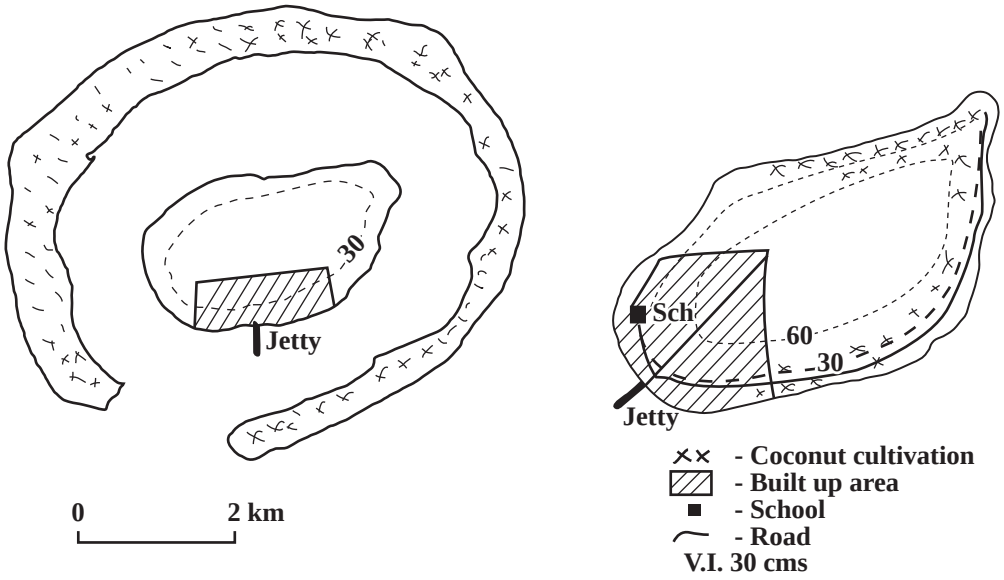


Figure 6. Imaginary coral islands

TO BE ATTACHED TO YOUR ANSWER BOOKLET

Extract No 819/SOUF

Four colours should appear above; if not then please return to the invigilator

Four colours should appear above; if not then please return to the invigilator

LESSER ANTILLES 1:25000
POINTE MICHEL



SCALE 1:25,000

Mile 1 ¾ ½ ¼ 0 1 2 3 4 5 Miles

Metres 1000 500 0 1 2 3 4 5 6 7 Kilometres

HEIGHTS IN FEET

Surfaced Road — Bridge
Unsurfaced Road
Track and four wheel drive trail
Footpath
Named Building
Other Building
Church, Chapel — Ch Cha
School — Sch
Court House, Hotel — Ct H H
Hospital, Cemetery — Hosp Cem
Police Station — Pol Sta
Post Office — PO
Locality Names — GRAND FOND
Fences, Hedges
Watercourse, Dam, Pond — Dam
Forest Reserve and National Park Boundaries
Parish Boundaries
Trigonometrical Stations:- Main △ " " :- Minor ▽
Heights in feet given to ground level — 1092
Contours V.I.50ft — 550 500 450
Forest
Low Forest, Woodland
Scrub
Line of Trees
Palms
Swamp
Mangrove
Cultivation and Plantation (C. Coconut) — C
Sand or Mud
Cliffs

The representation on this map of a Road, Track or Footpath, is no evidence of the existence of a right of way.

True North
Magnetic North 11°31′W
Grid North 10′01″E

At Sheet Centre
Magnetic Variation as at January 1975
Annual change 05′West

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