TEST CODE **01225020**

FORM TP 2015077

MAY/JUNE 2015

CARIBBEAN EXAMINATIONS COUNCIL

CARIBBEAN SECONDARY EDUCATION CERTIFICATE® EXAMINATION

GEOGRAPHY

Paper 02 – General Proficiency

2 hours 30 minutes

29 MAY 2015 (a.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. You may use a silent, non-programmable calculator to answer questions.
7. You may use geometrical instruments.
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)

Answer this compulsory question.

1. Study the map extract of Moneague, Jamaica, on the scale of 1:50 000 **(provided as an insert)**, and answer the following questions.

   (a) What is the six-figure grid reference of the church in Walkerswood, northeast of the area? **(2 marks)**

   (b) What is the bearing of the crossroads (Class A and Class C roads) at Moneague from the junction at Walkerswood? **(2 marks)**

   (c) What is the average gradient of the road from the junction at Walkerswood (400 metres high) to the crossroads at Moneague (310 metres high)? **Show all your working.** **(4 marks)**

   (d) Figure 1, **provided as an insert**, is an enlarged grid of part of the Friendship Pen (west of Moneaque) area on which the 600 metres contour line has been inserted. On Figure 1 **(provided as an insert)**,

      (i) insert the HIGHEST point in the area **(1 mark)**

      (ii) insert, and identify by the letter D, ONE depression east of Easting 32 **(1 mark)**

      (iii) draw the course of the river at Friendship Pen and indicate the direction of flow **(2 marks)**

      (iv) shade ALL land over 600 metres. **(2 marks)**

   (e) List TWO types of economic activity that can be found in the Claremont and Golden Grove areas. **(2 marks)**

   (f) State TWO features of the drainage in the area covered by the map extract. **(2 marks)**

   (g) Describe briefly, with reference to the entire map extract, TWO characteristics of EACH of the following features:

      (i) Distribution of settlements **(2 marks)**

      (ii) Form or type of settlements **(2 marks)**

GO ON TO THE NEXT PAGE

(h) Using examples, explain ONE relationship between relief of the land in the area covered by the map extract and EACH of the following features:

(i) Farming **(2 marks)**

(ii) Natural vegetation **(2 marks)**

(iii) Roads **(2 marks)**

Total 28 marks

SECTION B (Natural Systems)

Answer ONE question from this section.

2. (a) Figure 2 shows the boundaries of the tectonic plates (labelled with the letters **A**, **B**, **C**, **D** and **E**) in the Caribbean area. Identify, by letter and name, FOUR of the tectonic plates shown in the figure.

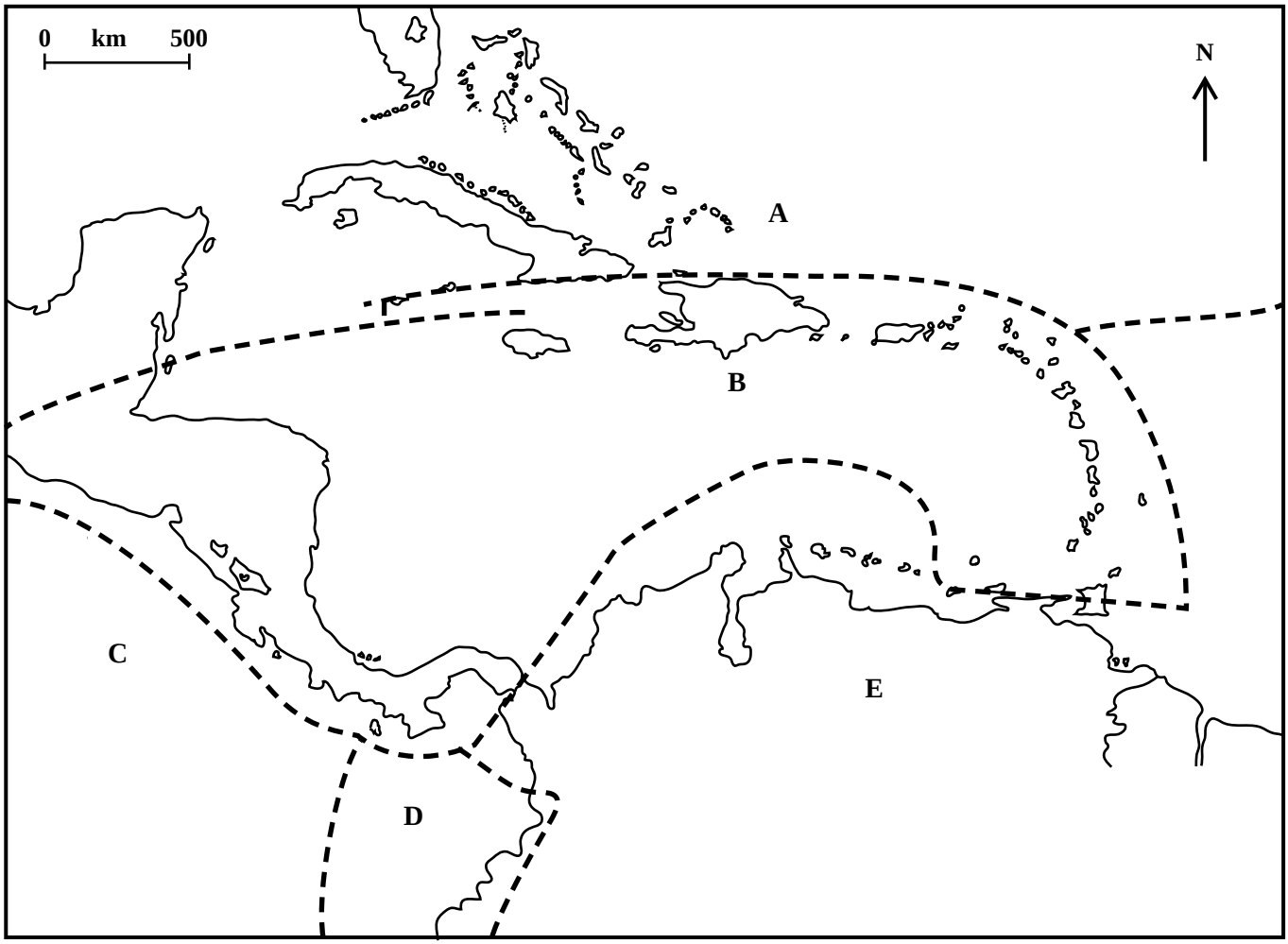


Figure 2. Tectonic plate boundaries in the Caribbean area

(4 marks)

(b) Define the following terms:

(i) Denudation **(2 marks)**

(ii) Weathering **(2 marks)**

(iii) Mass wasting **(2 marks)**

(iv) Erosion **(2 marks)**

(c) Compare the movement and resulting features at transform and convergent plate boundaries. Give an example of EACH of these types of boundaries in the Caribbean. **(6 marks)**

(d) Explain how temperature change and frost action can destroy rocks. **(6 marks)**

Total 24 marks

3. (a) Study Figure 3 **(provided as an insert)** which shows the movement of water when it reaches the surface.

The figure has an incomplete key. Complete the key to identify the features represented by FOUR of the symbols shown in the figure. **(4 marks)**

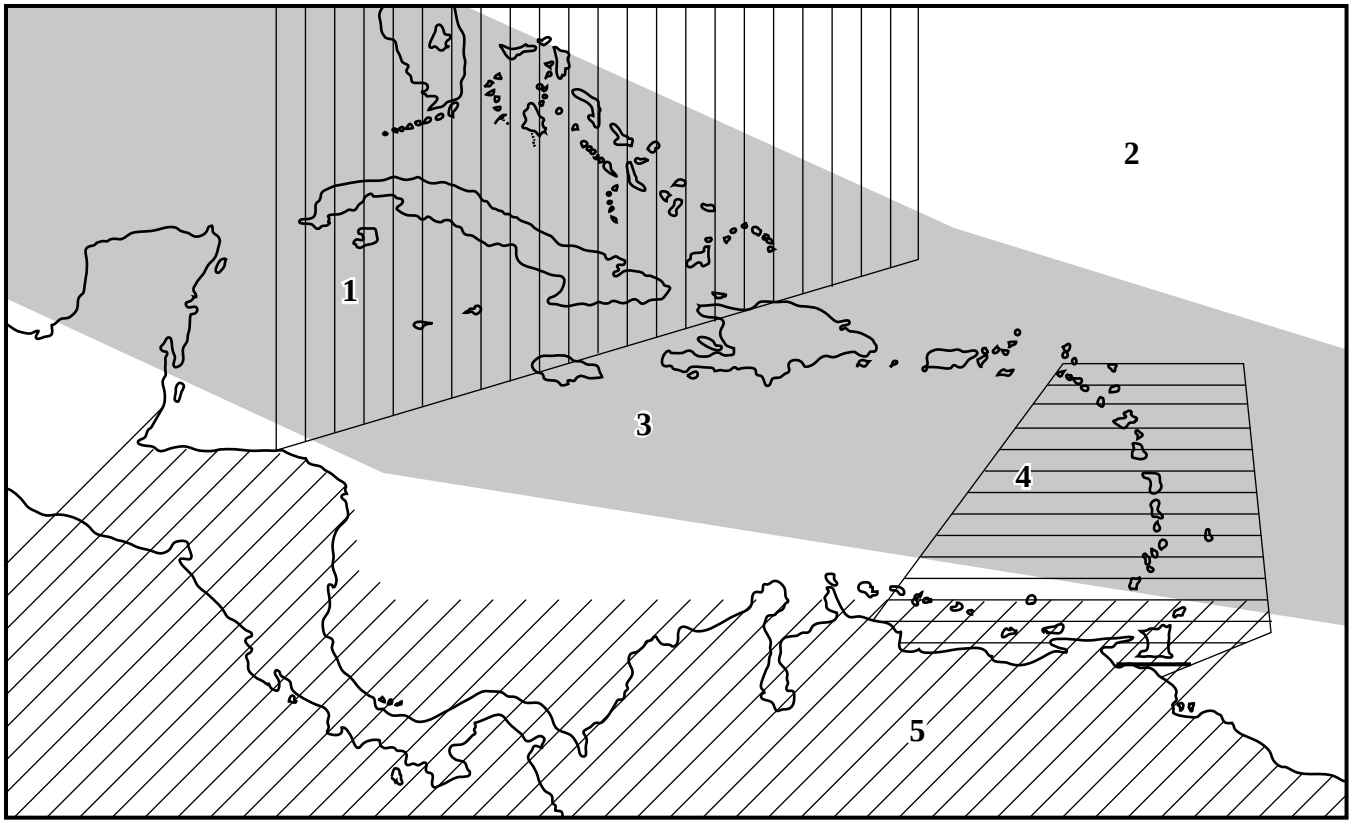
(b) Describe the FOUR ways in which a river erodes. **(8 marks)**

(c) Explain the cross-sectional shape of the channel of a river around a meander. **(6 marks)**

(d) Explain how the formation of levees and floodplains are related. **(6 marks)**

Total 24 marks

4. (a) Figure 4 shows five zones numbered 1 to 5 and the weather systems which influence Caribbean weather. Study the figure and answer the question that follows.



Key for zones

Zone	Key
1	
2	
3	
4	
5	

Figure 4. Weather systems in the Caribbean

Identify the number on the map which corresponds to the area where FOUR of the following weather systems are experienced most often.

- Anticyclone
- Cold front
- Hurricane
- Intertropical Convergence Zone
- Tropical Wave **(4 marks)**

(b) Describe the weather produced in an area as a tropical wave approaches and passes over it. **(4 marks)**

(c) Describe TWO characteristics of **both** the rainfall **and** temperature of an equatorial climate. **(4 marks)**

(d) Explain the role of EACH of the following factors in the formation of soils in equatorial areas:

(i) Climate **(6 marks)**

(ii) Vegetation **(6 marks)**

Total 24 marks

SECTION C (Human Systems)

Answer ONE question from this section.

5. (a) Study Table 1 which shows population statistics for Jamaica, and answer the questions that follow.

TABLE 1: NUMBER OF BIRTHS AND DEATHS IN JAMAICA, 1971–1985

Year	Births	Deaths	Natural Increase
1971	66 300	15 900	50 400
1973	61 900	16 000	45 900
1975		15 800	45 700
1977	60 400	16 100	44 300
1979	59 100	15 100	44 100
1981	59 400		44 200
1983	61 400	12 600	48 800
1985	50 200	13 900	

(i) Calculate the number of births that occurred in 1975. **(1 mark)**

(ii) Determine the natural increase for 1985. **(1 mark)**

(iii) Calculate the number of deaths that occurred in 1981. **(1 mark)**

(iv) Describe the pattern of deaths from 1971 to 1985. **(1 mark)**

(b) (i) Define the term ‘population density’. **(2 marks)**

(ii) State TWO characteristics of urbanization. **(2 marks)**

(iii) Outline TWO causes of urbanization in the Caribbean. **(4 marks)**

(c) Explain FOUR factors that have influenced the distribution of population in the Caribbean. Include an example for EACH factor. (You may use different Caribbean countries.) **(12 marks)**

Total 24 marks

6. (a) Table 2 shows the estimated contribution of each sector to the GDP of Grenada in 2005.

Use the information in the table to construct a pie chart.

TABLE 2: CONTRIBUTION OF SECTORS TO GDP IN GRENADA

Country	Primary	Secondary	Services
Grenada (%)	20	24	56

(4 marks)

(b) (i) Describe FOUR benefits of **either**

– the garment industry

or

– the food processing industry. **(8 marks)**

(ii) Select **either** garment manufacturing **or** food processing and compare TWO characteristics of the activity in a **named** Caribbean country with that of **either** Hong Kong **or** Singapore. **(4 marks)**

(c) Explain TWO challenges facing tourism in the Caribbean. **(8 marks)**

Total 24 marks

7. (a) Study Table 3 which shows banana production and export for selected Caribbean countries, and answer the questions that follow.

TABLE 3: BANANA PRODUCTION AND EXPORT IN THE CARIBBEAN, 2005

Country	Production (tonnes)	Export (tonnes)	Total Exported (%)
Belize	76 000	64 891	85
Dominica	16 000	12 732	80
Jamaica	125 000	116 713	93
Saint Lucia	45 000	30 630	68
Saint Vincent and the Grenadines	50 000	24 470	

(i) Identify the country which had the SECOND highest production, the second highest export and the second highest percentage exported. **(1 mark)**

(ii) How many more tonnes of banana were produced by Saint Lucia than Dominica? **(1 mark)**

(iii) Calculate the percentage of the banana production exported by St Vincent and the Grenadines. **(2 marks)**

(b) (i) Describe TWO characteristics of small/peasant farming in the Caribbean. **(4 marks)**

(ii) Outline TWO reasons for the importance of agriculture in the Caribbean. **(4 marks)**

(c) (i) Explain TWO factors influencing the location of **either** forestry **or** fishing **or** mining in a **named** Caribbean country. **(6 marks)**

(ii) Explain TWO challenges faced by the activity selected in (c) (i). **(6 marks)**

Total 24 marks

SECTION D (Human-Environment Systems)

Answer ONE question from this section.

8. (a) Study Figure 5 which shows a map of the Eastern Caribbean islands, and answer the question that follows.

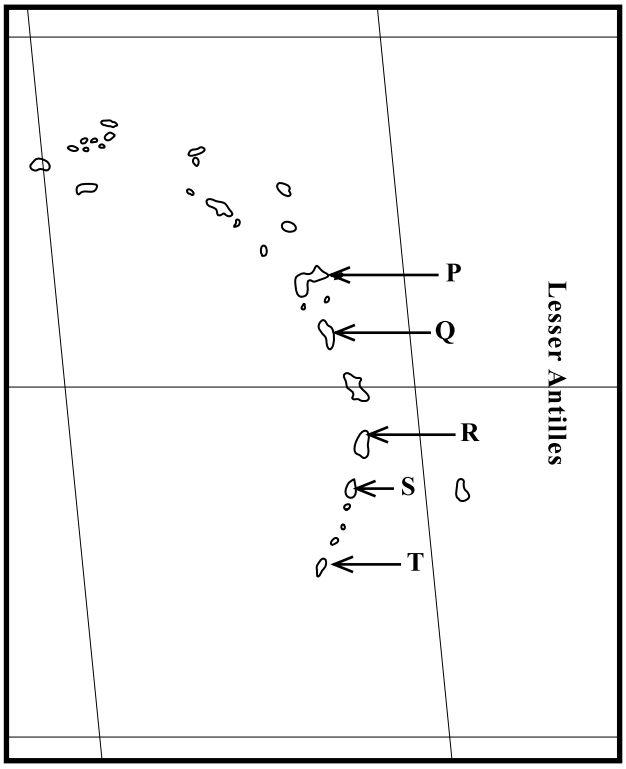


Figure 5. Map of the Eastern Caribbean islands

State the name of FOUR of the countries labelled P, Q, R, S and T. **(4 marks)**

(b) Describe FOUR impacts of ONE of the following hazards:

– Earthquakes
– Hurricanes
– Volcanoes **(8 marks)**

(c) Explain how TWO natural phenomena and TWO human activities can cause coral reef destruction. **(12 marks)**

Total 24 marks

9. (a) Draw a sketch map of a Caribbean territory, and on it shade and identify by name ONE area where marine pollution is a problem. **(4 marks)**

(b) (i) For the area named in (a), outline TWO causes of pollution. **(4 marks)**

(ii) Define the term 'air pollution'. **(2 marks)**

(iii) State TWO natural sources of air pollution. **(2 marks)**

(c) For a **named** Caribbean territory, explain FOUR measures that have been implemented to reduce deforestation. **(12 marks)**

Total 24 marks

10. (a) Study Table 4 which shows atmospheric composition of greenhouse gases, and answer the questions that follow.

TABLE 4: ATMOSPHERIC COMPOSITION OF GREENHOUSE GASES

Gas	Rate of Change Per Annum	Average Percentage of Greenhouse Gases	Direct Global Warming Potential
Water vapour		60.0	
Carbon dioxide	0.5	26.0	1
Methane	0.6–0.75	4.4	25
Nitrous oxide	0.2–0.3	1.5	298
Chlorofluorocarbons	4	0.1	10 500
Ozone	n/a	8.0	970

(i) Suggest ONE type of diagram that could be used to show the percentage of greenhouse gases. **(1 mark)**

(ii) Identify the gas that is the MOST abundant of the greenhouse gases. **(1 mark)**

(iii) Which gas is MOST effective in increasing global warming? **(1 mark)**

(iv) Which gas has the SECOND highest rate of increase per annum? **(1 mark)**

(b) (i) For any ONE Caribbean country, state the name of ONE area where pollution is a problem and identify the type of pollution. **(2 marks)**

(ii) Describe THREE ways in which **either** water pollution **or** land pollution can be controlled. **(6 marks)**

(c) Explain FOUR measures that can be used to reduce the emission of greenhouse gases. **(12 marks)**

Total 24 marks

END OF TEST

IF YOU FINISH BEFORE TIME IS CALLED, CHECK YOUR WORK ON THIS TEST.

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CARIBBEAN SECONDARY EDUCATION CERTIFICATE® EXAMINATION

GEOGRAPHY

Paper 02 – General Proficiency

Insert for Question 1. (d)

Centre Number _____

Candidate's Number _____

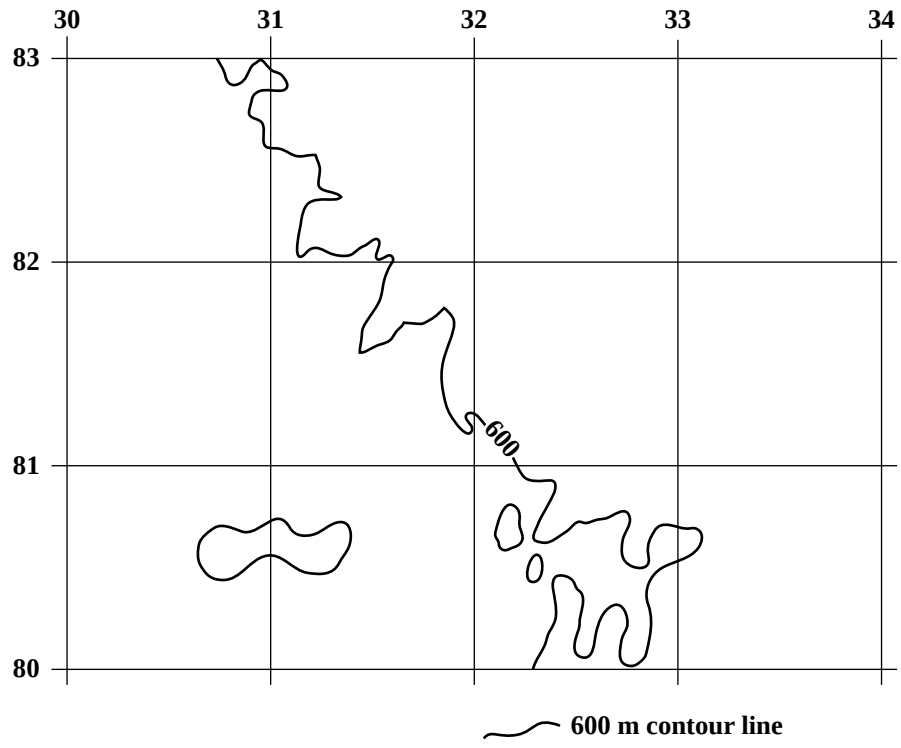


Figure 1. Enlarged grid of part of the Friendship Pen area

TO BE ATTACHED TO YOUR ANSWER BOOKLET

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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

CARIBBEAN SECONDARY EDUCATION CERTIFICATE® EXAMINATION

GEOGRAPHY

Paper 02 – General Proficiency

Insert for Question 3. (a)

Centre Number _____

Candidate's Number _____

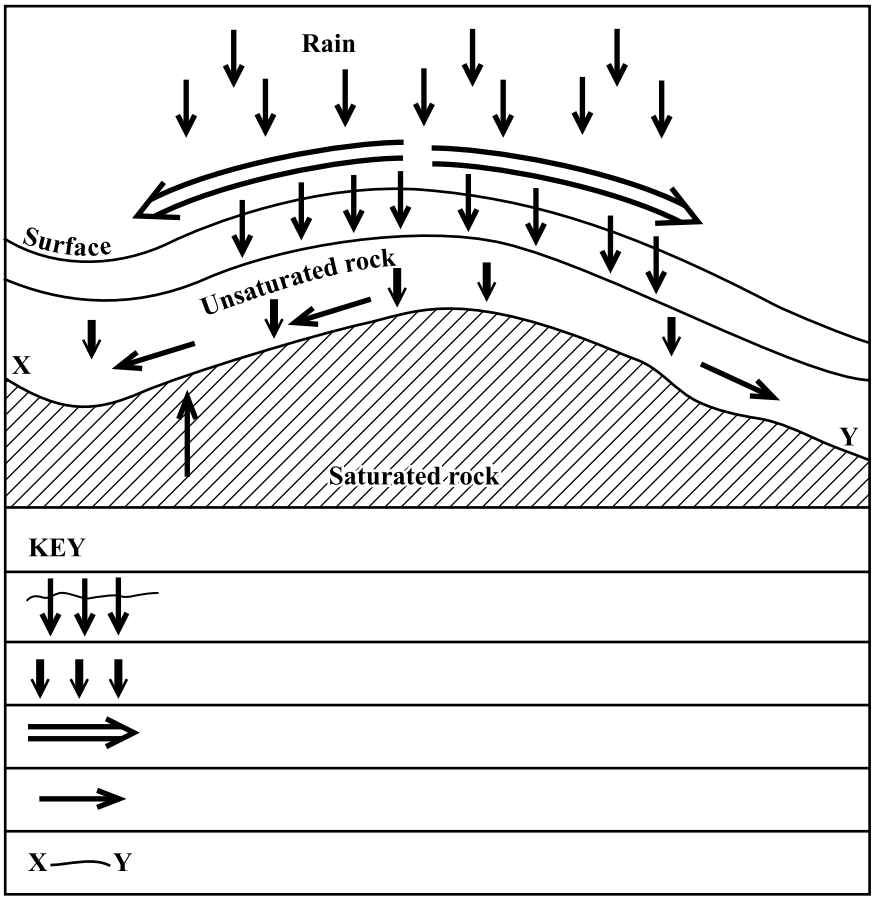
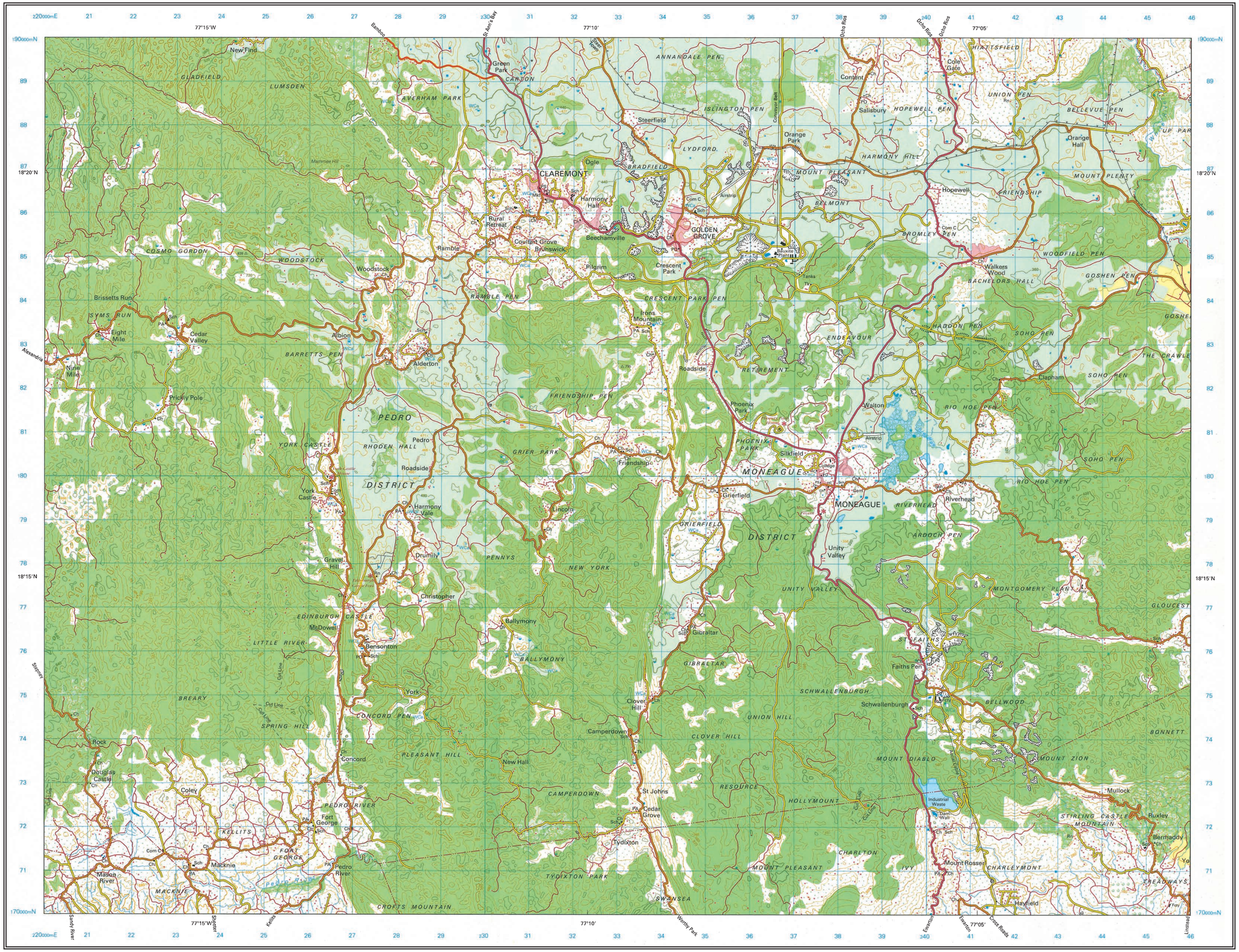


Figure 3. Diagram showing movement of water when it reaches the surface

TO BE ATTACHED TO YOUR ANSWER BOOKLET

JAMAICA 1:50,000 (METRIC EDITION)

MONEAGUE



LEGEND

- Road - Class A, Dual Carriageway
- Bridge — Road - Class B
- Class C
- Other
- Motorable Track or Footpath
- Built-up Area
- Named Building, Hotel, Other Building
- ST ANN'S BAY — Large Town
- RETREAT — Town
- CARRON HALL — Minor Town
- Chester — Village
- Station, Halt, Cutting, LC, Embankment — Railway
- Light Railway or Siding
- Railway tunnel
- Power Transmission Line
- Boundary - County
- Parish
- Boundary - Forest Reserve
- Trigonometrical Station
- Photogrammetric Spot Height
- Contours 20m V.I. up to 80m and 40m V.I. thereafter
- Depression
- Woodland
- Trees and Scrub
- Forest Plantation
- Sugar Cane Plantation
- Banana Plantation
- Citrus Plantation
- Coconut Plantation
- Tobacco Plantation
- Mixed or scattered Cultivation
- Pasture
- Watercourse, Waterfall, Rapids, Dam
- Alignment uncertain
- Pond, Lake
- Water Tank, Borehole
- Well, Spring
- Rice
- Mangrove
- Marsh or Swamp
- Coral
- Sand or Gravel
- Lighthouse, Chimney
- Point of Interest
- Transmitter
- Games Field / Playground
- Flat Rock
- Cliff, Quarry

The delineation of boundaries must not be considered authoritative

The representation on this map of a road, track or footpath is no evidence of a right of way

The accuracy of contours cannot be guaranteed in areas of high vegetation

Underwater features should not be relied on for the purposes of navigation

ABBREVIATIONS

Cem	Cemetery
Ch	Church
Com C	Community Centre
Ct Ho	Court House
Dis	Distillery
Fcty	Factory
FS	Fire Station
F	Ford
HC	Health Centre
Hosp	Hospital
HEP	Hydro Electric Plant
LC	Level Crossing
Lib	Library
Mkt	Market
NT	National Trust Commission Monument
PS	Police Station
PO	Post Office
PA	Postal Agency
Pwr S	Power Station
Res	Reservoir
Rn	Ruin
Sch	School
Tk	Tank
TEx	Telephone Exchange
UC	Under Construction
WCa	Water Catchment

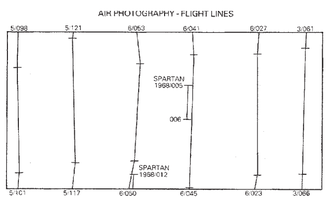
CONVERSION TABLE

Metres / Feet

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AIR PHOTOGRAPHY - FLIGHT LINES



Flown 1979-80, prefixed by 182/JA unless otherwise stated

Series 1
Sheet 8
Edition 1-JSD/DOS 1982

THIS SERIES WAS PREPARED JOINTLY BY THE GOVERNMENT OF JAMAICA (SURVEY DEPARTMENT) AND THE GOVERNMENT OF THE UNITED KINGDOM (DIRECTORATE OF OVERSEAS SURVEYS)

INDEX TO SHEETS



SHEET HISTORY

Edition 1 prepared by the Directorate of Overseas Surveys
Control taken from results of aerial triangulation for Jamaica 1:12500 series Ja 200
Air photography by BKS Surveys Ltd Dec 1979-Feb 1980 and Spartan Air Services Ltd 1968
Field completion by Survey Department Jamaica April 1981

SCALE 1:50,000

METRES 1000 500 0 1 2 3 4 5 6 7 8 9 10 KILOMETRES
YARDS 1000 500 0 ¼ ½ ¾ 1 2 3 4 5 6 MILES

HEIGHTS IN METRES

Users noting amendments are asked to mark them on the map and send it to:-

Director of Surveys
Survey Department
23½ Charles Street
P O Box 493
Kingston
Jamaica

The map will be replaced

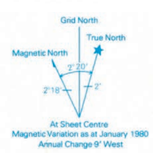
Copies of this map can be obtained from either of the following:-

Survey Department
23½ Charles Street
P O Box 493
Kingston
Jamaica

Edward Stanford Ltd
12/14 Long Acre
London
WC2E 9LP

Price Code 2

Grid:-	Jamaica Metre Grid
Projection:-	Lambert Conical Orthomorphic with One Standard Parallel (18°N)
Spheroid:-	Clarke 1866
Unit of Measurement:-	Metre
Meridian of Origin:-	77° West of Greenwich
Latitude of Origin:-	18° North
Scale Factor at Origin:-	1·000
False Co-ords of Origin:-	250,000m Easting
	150,000m Northing
Plan Datum:-	Fort Charles Flagstaff
Height Datum:-	Mean Sea Level



At Sheet Centre
Magnetic Variation as at January 1980
Annual Change 9' West

JAMAICA METRE GRID

TO GIVE A GRID REFERENCE ON THIS SHEET
Prefix 1:50,000 Sheet number e.g. 8/245850

POINT △839

Easting		Northing	
Take West edge of square in which point lies, and read the figure printed opposite this line on North or South margin. Estimate tenths Eastwards.	24 5	Take South edge of square in which point lies, and read the figure printed opposite this line on East or West margin. Estimate tenths Northwards.	85 0
East	245	North	850

REFERENCE 8/245850 to nearest 100 metres.