

FORM TP 2016215



TEST CODE **02125020**

MAY/JUNE 2016

CARIBBEAN EXAMINATIONS COUNCIL
CARIBBEAN ADVANCED PROFICIENCY EXAMINATION®

GEOGRAPHY

POPULATION GEOGRAPHY, GEOMORPHIC
PROCESSES AND HAZARDS

UNIT 1 – Paper 02

3 hours

13 MAY 2016 (p.m.)

READ THE FOLLOWING INSTRUCTIONS CAREFULLY.

1. This paper consists of SEVEN questions. Answer FOUR questions as indicated below.
2. Section A consists of ONE question testing practical skills. This is compulsory.
3. Section B consists of SIX questions. Answer THREE questions, ONE from EACH Module.
4. Write your answers in the answer booklet provided.
5. A map extract and a grid are provided for Question 1.
6. All diagrams must be well labelled.
7. You may use a silent, non-programmable calculator to answer questions.
8. You may use geometrical instruments.

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

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SECTION A

Answer this compulsory question.

1. Study the map extract (**provided as an insert**) of May Pen, Jamaica, on a scale of 1:50 000, and answer the questions that follow.
- (a) (i) With reference to specific examples, describe TWO types of settlement patterns shown on the map extract. [4 marks]
- (ii) Explain how the distribution of settlements is influenced by relief and drainage. [6 marks]
- (iii) Describe the location of the built-up area of Old Harbour Bay (3939). [5 marks]
- (b) (i) Identify the drainage pattern of Shutes Gully (3041). [1 mark]
- (ii) On the grid in Figure 1 (**provided as an insert**), draw in Shutes Gully and its tributaries. [4 marks]
- (iii) On the river drawn in Figure 1, label the order of EACH tributary. [3 marks]
- (iv) Calculate the bifurcation ratio of the Shutes Gully tributaries. [4 marks]
- (c) Describe ONE piece of map evidence that suggests that limestone is a **major** rock type in the area covered by the map extract. [3 marks]
- (d) For EACH of the following hazards, identify a SEPARATE site on the map extract that could experience its effects.
- (i) Tsunami [1 mark]
- (ii) Flooding [1 mark]
- (iii) Chemical spill [1 mark]
- (e) For EACH site selected in (d), outline the reason for your choice. [6 marks]
- (f) For EACH hazard in (d), describe ONE strategy that could be implemented to mitigate its effects. [6 marks]

Total 45 marks

SECTION B

Answer **THREE** questions from this section, **ONE** question from **EACH** Module.

MODULE 1

Answer **ONE** question.

2. (a) Table 1 presents data for the crude birth rate (CBR) and crude death rate (CDR) for Countries X, Y and Z.

TABLE 1: CRUDE BIRTH RATE AND CRUDE DEATH RATE FOR COUNTRIES X, Y AND Z

Country	CBR/1000	CDR/1000	Annual Growth Rate (%)
X	45	15	
Y	17	6	
Z	8	1	

Complete the table by using the data presented to calculate the annual population growth rate (as a percentage) for Countries X, Y and Z. **Show your working.** [6 marks]

- (b) Outline **TWO** advantages and **ONE** disadvantage of using a choropleth map to depict population density. [6 marks]
- (c) The demographic transition model (DTM) does not accurately reflect the stages of population change experienced in less developed countries (LDCs). State **THREE** reasons why this is so. [6 marks]
- (d) Write an essay to assess **TWO** pros and **TWO** cons of a pronatalist policy in a named country that you have studied. [12 marks]

Total 30 marks

3. (a) Study Figure 2 which shows the distribution of the world's population, and answer the questions that follow.

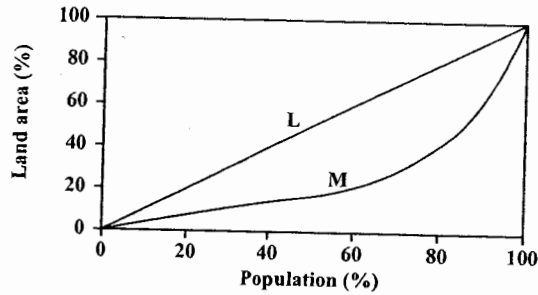


Figure 2. Distribution of world's population

- (i) What percentage of the population is found on 40% of the land area? [1 mark]
 - (ii) What percentage of the population is found on 60% of the land area? [1 mark]
 - (iii) Outline the principle represented by Line L. [2 marks]
 - (iv) Describe the distribution illustrated by Line M. [2 marks]
- (b) Describe THREE features of Hoyt's sector model of urban land use. [6 marks]
- (c) Explain TWO factors which may affect the location of rural settlements in less developed countries (LDCs). [6 marks]
- (d) Write an essay to discuss FOUR effects of population change in rural settlements of more developed countries (MDCs).

Include both positive and negative effects in your discussion. [12 marks]

Total 30 marks

MODULE 2

Answer ONE question.

4. (a) Study Figure 3 which illustrates the hydrological cycle, and answer the questions that follow.

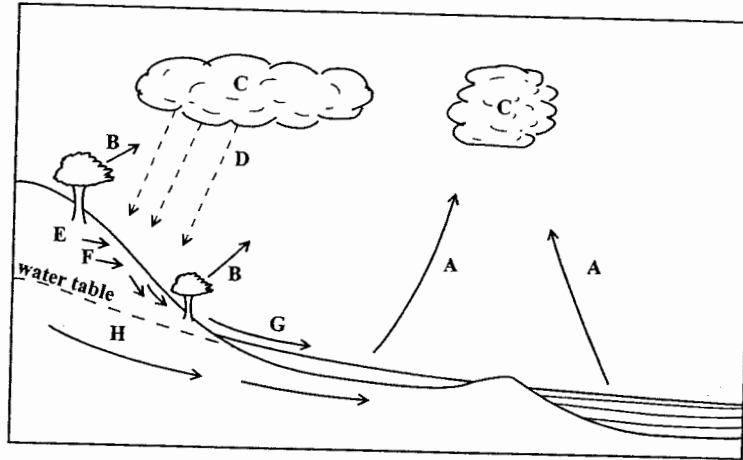


Figure 3. The hydrological cycle

- (i) Identify the processes labelled A, C, F and H. **[4 marks]**
- (ii) Briefly describe the FOUR processes you identified in (a) (i). **[8 marks]**
- (b) Select ONE of the following coastal landforms and explain how marine processes influenced its formation.
- Wave-cut platform
 - Stack
 - Cuspate foreland
- [6 marks]**
- (c) Discuss TWO theories that have been used to explain the formation of coral reefs. **[12 marks]**

Total 30 marks

5. (a) Study Figure 4 which shows a river flood plain, and answer the question that follows.

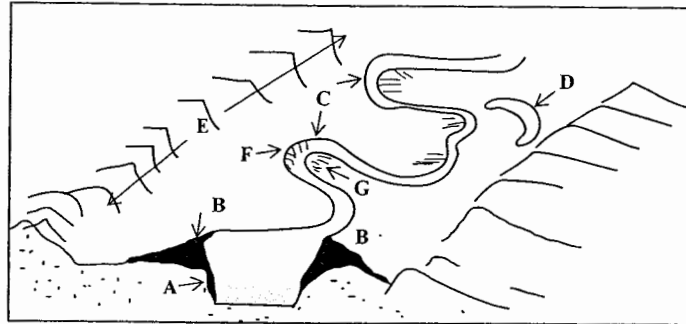


Figure 4. Features of river flood plain

- Identify the features labelled B, D, E and F. [4 marks]
- (b) Describe the FOUR main characteristics of limestone. [8 marks]
- (c) Explain how a waterfall may develop in a river channel. [6 marks]
- (d) Explain ONE way in which EACH of the following factors may influence the cross profile of river valleys:
- (i) Physical [6 marks]
 - (ii) Human [6 marks]

Total 30 marks

MODULE 3

Answer ONE question.

6. (a) (i) Draw a diagram to illustrate the features of a normal fault. [2 marks]
- (ii) Insert the footwall and downthrust in the diagram that you drew in (a) (i). [2 marks]
- (b) Describe how coastal flooding may be caused by
- (i) sea level changes [4 marks]
- (ii) types of precipitation events. [4 marks]
- (c) Explain, using examples, the relationship between plate tectonics and volcanoes. [18 marks]

Total 30 marks

7. (a) Study Figure 5 which shows the aftermath of a flood, and answer the questions that follow.

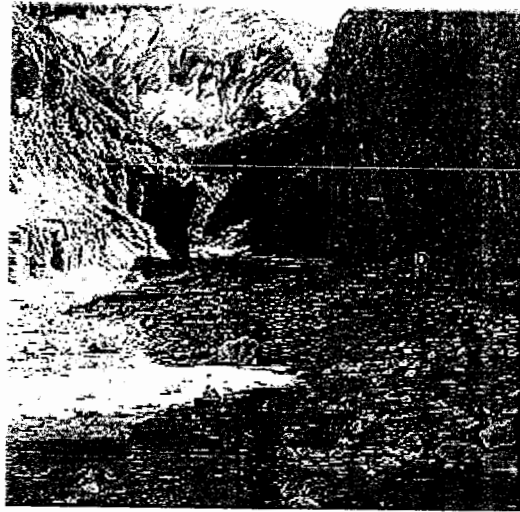


Figure 5. Aftermath of a flood

- (i) Identify the type of flood which caused the effect shown. [1 mark]
- (ii) State THREE features of the landscape shown that influence this type of flooding. [3 marks]
- (b) Describe, using examples, TWO effects of earthquakes on
- (i) the natural environment [4 marks]
- (ii) the built environment. [4 marks]
- (c) 'People consciously place themselves at risk from natural hazards.'
- Write an essay discussing FIVE reasons for the preceding observation. [18 marks]

Total 30 marks

END OF TEST

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