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## GEOGRAPHY

Paper 2 Data Response Questions

**9751/02**

**20 September 2018**

**3 hours**

Additional Materials: Answer Paper  
World Outline Map  
Insert

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### READ THESE INSTRUCTIONS FIRST

Write your name, civics group and question number on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
Write your answer to each question on a fresh sheet of paper.  
Do not use paper clips, highlighters, glue or correction fluid.

Candidates answer **all** questions.

You should make reference to appropriate examples studied in the field or the classroom, even when such examples are not specifically requested by the question.

Diagrams and sketch maps should be drawn whenever they serve to illustrate your answer.

The world outline map may be annotated and handed in with relevant answers.

You are reminded of the need for good English and clear presentation in your answers.

At the end of the examination, fasten all your work securely together.

All questions in this paper carry equal marks.

The number of marks is given in brackets [ ] at the end of each question or part question.

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This document consists of **4** printed pages.

## Section A

### Theme 4: Geographical Investigations

- 1** The Marina Bay area is an extension of Singapore's Central Business District. During the 1970s and 1980s, the government reclaimed land to develop the area into a world-class destination. Marina Bay is currently envisioned as a vibrant 24/7 and sustainable mixed-use district where people live, work, play.

A group of 25 students from Goodwill Junior College wanted to examine the impact of urban imaging of the Marina Bay area on different groups of people living in the city. The students took 3 days during their June vacation to conduct the study via site observations and the use of a questionnaire survey on 100 respondents, administered at the entrance of the Marina Bay Sands integrated resort. They also have access to secondary data including photos and a land-use map.

Resource 1 shows the photos of the Marina Bay area before and after development.

Resource 2 shows the current land-use map of the Marina Bay area.

Resource 3 shows an excerpt of the survey questions crafted by the students.

- (a)** Suggest a research question for the investigation and explain three reasons why it is of a suitable scale. [4]
- (b)** Explain how Resources 1 and 2 are useful as secondary data to a group of students carrying out this investigation on the impact of urban imaging of Marina Bay. [5]
- (c)** With reference to Resource 3, describe an appropriate method to represent the data that would be obtained. Outline one advantage of the chosen data representation method. [3]
- (d)** Your group concluded that some of the data collected may not be completely reliable and/or accurate.  
  
Explain how the process of data collection could be improved. [5]
- (e)** The Urban Redevelopment Authority (URA) has asked the group to gather information to assess the success of urban imaging of Marina Bay. Outline how the group would go about collecting the information. [8]

## Section B

### Theme 1: Tropical Environments

#### Climates and Hydrological Systems in the Tropics

- 2** Resource 4 shows the global distribution of average annual solar radiation received on the Earth's surface. Resource 5a and 5b show the annual climates of Manaus, Brazil (latitude 3°S) and Kano, Nigeria (latitude 12°N). Resource 6 shows the changes in bedload particle diameter and distance from the source of a river in Manaus. Resource 7 shows the drainage pattern of two drainage basins.
- (a) With reference to Resource 4, explain the variations in the global distribution of average annual solar radiation received on Earth's surface. [6]
  - (b) Contrast the climates of Manaus, Brazil and Kano, Nigeria using Resource 5a and 5b. [5]
  - (c) Using Resource 6, describe the changes in bedload particle diameter with increasing distance from the source of the river. [4]
  - (d) Explain two fluvial erosional processes that have led to the changes in bedload particle diameter in Resource 6. [4]
  - (e) With the aid of a diagram(s), explain how and why the characteristics of hydrographs would differ between the two drainage basins shown in Resource 7. [6]

### Theme 2: Development, Economy and Environment

#### Increasing Global Competitiveness in Vietnam

- 3** Resource 8 shows the nature of Foreign Direct Investments in Vietnam from 2012 to 2017. Resource 9 shows the number of labour workers employed by Nike directly or indirectly worldwide. Resource 10 shows the annual and hourly minimum wage of selected countries. Resource 11 shows an excerpt of an article on new laws in Vietnam seeking to attract foreign investments.
- (a) With reference to Resource 8, describe the changes in Foreign Direct Investments and number of new projects in Vietnam from 2012 to 2017. [4]
  - (b) Using Resource 8 and your own knowledge, suggest reasons for the relative significance of *Processing-manufacturing* in the structure of Vietnam's economy. [5]
  - (c) Using Resources 9, 10 and your own knowledge, explain why Nike employs labour workers from around the world. [7]
  - (d) Using Resources 8, 10, 11 and your own knowledge, evaluate the extent to which Vietnam can be considered competitive in the global economy. [9]

### Theme 3 – Sustainable Development

#### Issues of Traffic Congestion and Liveability in New Zealand

- 4** Resource 12 shows the changes in spatial distribution of elderly population in New Zealand from 2011-2031. Resource 13 shows the main means of travel to work in Auckland and Wellington. Resource 14 shows the current (2015) and proposed (2030) rail network in Auckland. Auckland is a major city in New Zealand's North Island and Wellington is the capital of New Zealand.
- (a)** Describe the spatial distribution of elderly population in New Zealand in 2031, seen in Resource 12. [3]
- (b)** Explain **three** limitations of Resource 12 in representing changes in spatial distribution of elderly population in New Zealand from 2011 to 2031. [5]
- (c)** Using Resource 13, compare between the main means of travel to work by employed population in Auckland and Wellington. [4]
- (d)** In February 2018, the NZ Herald wrote that Aucklanders, on average, spend 80 unproductive hours on the road in a year due to traffic congestion. With reference to Resource 13, account for the causes of traffic congestion faced in Auckland. [4]
- (e)** Using Resources 13, 14 and your own knowledge, evaluate the strategies that the Auckland city government can implement to ease traffic congestion in the city. [9]

**-End of Paper-**