



ANDERSON JUNIOR COLLEGE

JC2 H2 Geography Preliminary Examinations (2017)

H2 GEOGRAPHY

9751/02

Paper 2 Data Response Questions

28 August 2017

3 hours

Additional Materials: Writing Paper
 1 Insert
 World outline map

READ THESE INSTRUCTIONS FIRST

Write your name and class in the spaces provided below, and on the work you hand in.
Write in dark blue or black pen on both sides of the paper.
You may use an HB pencil for any diagrams or graphs.
Do not use staples, paper clips, highlighters, glue or correction fluid.

Candidates answer **all** questions.

The Insert contains all the Resources referred to in the questions.
You should make reference to appropriate examples studied in the field or the classroom, even where such examples are not specifically requested by the question.
Diagrams and sketch maps should be drawn whenever they serve to illustrate an 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.
The number of marks is given in brackets [] at the end of each question or part question.

Name: _____ PDG: _____

Section A	Section B			Total
25	25	25	25	100

This question paper consists of 4 printed pages.

[Turn Over]

Section A

Theme 4: Geographical Investigation

- 1 A group of 24 18 year-old students from the city of Melbourne, in the state of Victoria, Australia wanted to examine liveability in different parts of Melbourne. They selected the neighbourhoods of Southbank and Kensington for their investigation.

Southbank is an inner urban neighbourhood of Melbourne, Victoria, Australia, 1 km south of Melbourne's central business district. Kensington is an inner suburb of Melbourne, Australia, 4 km north-west of Melbourne's central business district. The students had access to census information about the birthplace of the residents, the houses they stay in, their level of education and their monthly income.

The students wanted to gain further information on sports facilities, cultural opportunities, public transport and the quality of roads to gain a fuller picture of liveability. They were allocated three days for field investigation at the beginning, in the middle and at the end of November.

Resource 1 shows a map of Melbourne. Resource 2 shows selected data comparing the population numbers, population densities, median age, levels of education, median income, property prices, percentage of overseas born population, citizenship of migrants and English proficiency of migrants in Kensington and Southbank. Resource 3 shows the top 5 crime offence data in Southbank and Kensington respectively.

- (a) With reference to the background information provided and Resource 1, outline why there might be contrasts in liveability between Southbank and Kensington. [2]
- (b) Suggest a suitable research question for the students' investigation with reference to Resource 2, and state **two** reasons why the research question is at a suitable scale. [3]
- (c) Explain how Resources 2 and 3 can help the students understand liveability in Southbank and Kensington. [6]
- (d) For Southbank, sketch one **pie chart** to represent English proficiency of migrants using the information in Resource 2 and one **bar graph** to represent crime offence in 2015 using the information in Resource 3. [5]
- (e) Suggest a plan for the students to investigate the quality of public transport. [9]

Section B**Theme 1: Tropical Environments****South Asian Monsoon**

- 2** Resource 4 shows the passage of the monsoon in South Asia. Resource 5 shows monthly discharge amounts for three rivers in South Asia. Resource 6 provides information on landslides in South Asia from 2006 to 2008. Resource 7 shows a mass movement event in the Himalayan state of Uttarakhand, India.
- (a) With reference to the map shown in Resource 4, describe the passage of the monsoon across South Asia. [5]
- (b) With reference to Resources 4 and 5, account for the relationship between the monsoon and discharge amounts of rivers Brahmaputra and Ganges. [6]
- (c) With reference to Resource 6, describe the pattern of landslide occurrence in South Asia. [4]
- (d) Identify, and provide evidence for, the type of mass movement shown in Resource 7. [4]
- (e) With reference to Resource 7 and your own knowledge, explain how the mass movement in Uttarakhand, India might have occurred. [6]

Theme 2: Development, Economy and Environment

Research and Development by Transnational Corporations

- 3 Resource 8 shows the breakdown of research and development (R&D) income and expenditure by transnational corporations (TNCs) in 2007, as well as the flow of R&D expenditure between regions. Resource 9 shows Apple's actual and expected expenditure on R&D from years 2004 to 2016. Resource 10 gives a breakdown of R&D expenditure for some TNCs in 2009.
- (a) Compare the breakdown of R&D income and expenditure for higher-income and lower-income countries as shown in Resource 8. [4]
 - (b) Using evidence from Resource 8, identify the region with the highest R&D income generated and suggest **one** reason for the region's amount of R&D income generated. [4]
 - (c) Describe Apple's changing contribution to R&D as shown in Resource 9. [3]
 - (d) Account for the locational trends of headquarters (HQs) as shown in Resource 10. [6]
 - (e) Using Resource 8 and your own knowledge, explain how R&D income and expenditure patterns reflect the core-periphery model. [8]

Theme 3: Sustainable Development

Energy Consumption and Production in the World

- 4 Resource 11 shows the world energy consumption by source, 1990 to 2040. Resource 12 shows the top ten countries with the highest carbon dioxide emissions. Resource 13 shows the world's 25 largest hydroelectric plants. Resource 14 shows the renewable power capacities of the world, selected regions and countries. Renewable power capacities are based on the energy generated from renewable energy infrastructure.
- (a) With reference to Resource 11, describe the trends of world energy consumption. [3]
 - (b) With reference to Resource 11, account for the trend in nuclear energy consumption from 1990 to 2040. [4]
 - (c) With reference to Resource 12, explain why a consideration of total carbon dioxide emissions alone provides an inaccurate picture of a country's ecological footprint. [8]
 - (d) With reference to Resource 13, describe the distribution of the world's largest hydroelectric plants. [3]
 - (e) With reference to Resource 14 as well as your own knowledge, suggest reasons why the potential for renewable energy consumption varies spatially. [7]