Class Adm No

Candidate Name: _____

H

millennia institute

2018 Preliminary Exams
Pre-University 3

GEOGRAPHY **9751/02**
Paper 2 Data Response Questions **10 September 2018**

3 hours

Additional Materials: Answer Paper
1 Insert
World Outline Map

INSTRUCTIONS TO CANDIDATES

Write your name, admission number and class on all the work you hand in.
Write in dark blue or black pen on both sides of the paper.
You may use a soft pencil for any diagrams, graphs, or rough working.
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.
Diagram 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.

Section A

Theme 4: Geographical Investigation

1 A group of twenty 18-year-old students were tasked with undertaking a fieldwork exercise on the impact of the aerospace industry in Singapore. They selected Rolls-Royce's research and development (R&D) facility at Seletar, Singapore, for their investigation. Rolls-Royce R&D is located at Seletar Aerospace Park and is responsible for Rolls-Royce integrated manufacturing and research and training. The facility assembles up to 250 engines and produce 8,600 fan blades (a Roll-Royce state-of-the-art patented technology) annually. Singapore is the regional centre for Rolls-Royce' R&D and corporate functions.

The group was divided into four teams of five students each to collect data from:

(i) the employees and management staff of Roll-Royce Seletar
(ii) businesses within 1km of the site
(iii) residents of the adjacent housing estates (such as Sengkang and Punggol)
(iv) strategic local partners working with Rolls-Royce

The teams would visit the Rolls-Royce facility at Seletar to collect data from employees, businesses and residents on five weekdays in March.

Resource 1 shows the location of Rolls-Royce (in red box) in Seletar, Singapore. Resource 2 shows the types of partnership that Rolls-Royce has established with the various stakeholders in Singapore to bring about positive impacts to the local community.

(a) Suggest a research question for the investigation based on Resource 1 and state how the research question might be suitable for the investigation. [4]

(b) Suggest an appropriate plan to collect primary data in the area as represented in Resource 1. [7]

(c) Suggest how students could supplement the information and findings presented in Resource 2 to find out more about Rolls-Royce's impact on local industries. [5]

(d) Using Resources 1 and 2, evaluate how this research might be useful in understanding the impacts of Rolls-Royce R&D in Singapore. [9]

Section B

Theme 1: Tropical Environments

The Tropical Environment of Vietnam

2 Resource 3 shows data on protected status of karst areas in Southeast Asia. Resource 4 shows the climograph and a photograph of the karst landscape of Ha Long Bay in Vietnam. Resource 5 shows an aerial photograph of the Mekong River in Vietnam. Resource 6 shows the changes in forest cover in Vietnam from 1990 to 2005.

(a) Describe Vietnam's karst landscape relative to those in other Southeast Asia countries' as shown in Resource 3. [3]

(b) Using Resource 4, explain the conditions necessary for the development of karst landscape. [7]

(c) With the aid of a well-labelled diagram, explain the channel characteristics at cross-section AB as shown in Resource 5. [5]

(d) With reference to Resource 6, suggest **two** reasons for the trends in forest cover in Vietnam from 1990 to 2010. [5]

(e) Explain how the changes in primary forest cover in Vietnam as shown in Resource 6 would affect the tropical environment of Vietnam shown in Resources 4 and 5. [5]

Theme 2: Development, Economy and Environment

Nike's Global Production Network

3 Resource 7 shows Nike's production map in 2014. Resource 8 shows Nike's job openings in the US and around the world and the description of the jobs offered in its corporate offices in 2015. Resource 9 is a factfile about China.

(a) With reference to Resource 7, describe the spatial distribution of Nike's global production network. [3]

(b) Suggest reasons for the locations of Nike's global production network as shown in Resource 7. [6]

(c) With reference to Resource 8, describe the global patterns of job openings (including US) offered by Nike's corporate offices. [3]

(d) Using evidence from Resource 9, suggest **two** reasons why Nike may want to continue its operations in China. [4]

(e) Using Resources 7, 8, 9 and your own knowledge, recommend whether Nike should prioritise its investment in Asia Pacific or the Americas region and justify your decision. [9]

Theme 3: Sustainable Development

Global and China's Investments in Renewable Energy

4 Resource 10 shows the worldwide investments in renewable energy between 2006 to 2015. Resource 11 shows the renewable energy investments by technology in 2015. Resource 12 shows the leading investors in renewable energy in 2015. Resource 13 shows China's targeted energy mix by 2050.

(a) With reference to Resource 10, describe the changes in worldwide investments in renewable energy between 2006 to 2015. [4]

(b) With reference to Resource 10, account for the changes in worldwide investments in renewable energy between 2006 to 2015. [4]

(c) Explain possible reasons contributing to the proportion of renewable energy investments by technology as shown in Resource 11. [4]

(d) Discuss possible reasons contributing to China's investment in renewable energy as shown in Resource 12. [6]

(e) Discuss the likelihood of China achieving its aims by 2050 as stated in Resource 13. [7]
