



MERIDIAN JUNIOR COLLEGE
PRELIM EXAMINATION
Higher 2

JC 2 H2 Geography

9751/02

Paper 2

19 September 2018

3 Hours

Additional Materials: Answer Book
Insert
World outline map

READ THESE INSTRUCTIONS FIRST

Write your name and Civics Group clearly on **all** your answer scripts.
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, glue or correction fluid.

Candidates answer **all** questions.

The Insert contains all the Resources referred to in the questions.
You should make a reference to appropriate examples studied in the field or the classroom, even where the examples are not specifically requested by the question.
Sketch maps and diagrams should be drawn wherever they serve to illustrate an answer.
You are reminded of the need for good English and clear presentation in your answers.

Start each question on a fresh sheet of paper.

1. At the end of the examination, fasten this **cover sheet** and all your work in **chronological order** together securely for submission.

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

This document consists of 5 printed pages.

Name: _____

Class: _____

Index number: _____

Qn no.	Marks	Qn no.	Marks
1		3	
2		4	
Total			

Section A

Theme 4 – Geographical Investigation

- 1 A class of 22 Geography students were tasked to undertake an investigation to ascertain the impact of industries on local communities. They were given 2 weeks during June to conduct the investigation.

During the planning phase of the geographical investigation, the team identified the industrial estates by first looking at the Jurong Town Corporations (JTC) industrial map of Singapore. Due to time and manpower constraints, the team chose to focus on investigating the environmental impacts of industries on local communities and identified two industries of different nature to conduct their study:

1. Pasir Ris Wafer Fabrication Park, which is characterised by high technology-based light industries
2. Eunus Industrial Estate, which is characterised by medium-to-heavy industries.

Both industrial estates are located at the Eastern part of Singapore

To measure the air quality, an Air Quality Meter was used. They selected sites within 500m of each industry and recorded the readings for particulate matter (PM) concentration in the air, temperature and humidity levels. The readings were taken daily at 9am and 6pm and the results were recorded.

Resource 1 shows the map used by the students for the 2 sites of investigation.

Resource 2 shows the Air Quality Meter and the features.

Resource 3 shows a table the students created to record the readings.

- (a) With reference to Resource 1 and Resource 3, suggest a hypothesis for the investigation and explain why it is suitable. [3]

Award 1m for a suitable and testable hypothesis relating industries and impact to local community

Award 2m for explanation which address time, resource, scale of research

- (b) Explain the considerations the students should take note of when selecting the sites for measuring air quality. [5]

Consideration could include manpower, contamination which affect accuracy of data, number of sites, characteristics of sites

- (c) State **two** limitations of the data collection method and explain how the data collection process can be improved. [6]

For each limitation, explain a related solution to improve the data collection process. Could include limitations in terms of timing, spatial scale, manpower resource etc

- (d)** Suggest how the data recorded can be represented. [2]

Suggested representation should include ability to compare between places and across time.

- (e)** Evaluate the usefulness of the investigation in understanding impacts of industries on local communities. [9]

Evaluation should include usefulness and limitations of research and of environmental impact measurements as well as a detailed discussion of other information useful for understanding other aspects of impacts e.g. social and economic impacts of industries on local communities

Section B

Theme 1: Tropical Environment

Climate Variability and Channel Morphology in Asia Pacific

- 2** Resource 4 shows the average sea surface temperature anomalies between June and July 2010.

Resource 5 shows the climate data of Dhaka, Bangladesh, under normal conditions.

Resource 6 shows the Jamuna River and a segment of the features of the river.

- (a)** Using Resource 4, describe the temperature anomalies in the Pacific Ocean. [4]

Note differences between East and West Pacific Ocean and intensity of temperature anomalies

- (b)** Using Resources 4, 5 and 6, suggest how temperatures anomalies can result in changes in rainfall pattern in Dhaka, Bangladesh. [4]

Explain how increase in temperature shown in resource 4 can result in increase in amount of precipitation and also changes in monsoon precipitation

- (c)** Describe the morphological features of the segment of Jamuna river shown in Resource 6. [4]

Relate to specific features of braided stream e.g. broad containing channel, anastomosing stream, mid channel bars etc and support with evidence from resource 6

- (d)** Using Resources 4 and 6, explain how the temperature anomalies may result in changes in channel processes and morphological features of the Jamuna River. [6]

Relate changes to temperature to discharge changes (increase rainfall/ Himalayan snow melt) and hence changes to channel processes (erosion, transportation, deposition) which may change features of braided stream

- (e)** Using Resource 4 and your own knowledge, explain how impacts of the temperature anomalies may differ between Australia and Peru. [7]

Discuss environmental, social, economic differences in impact between Australia and Peru. Note that Resource 4 does not show El Nino.

Theme 2: Development, Economy and Environment
Global Economic Development

3 Resource 7 shows the pattern of global trade flows in 2001.

Resource 8 shows the global inequalities in R&D expenditure in 2002.

- (a)** Using Resource 7, compare the pattern of global trade flows between Africa and Western Europe in 2001. [4]

Comparison can be made in terms of volume of trade, amount of trade flows, types and variety of trade

- (b)** Suggest reasons for pattern of trade flows described in (a). [6]

Explain why Africa has lower amount and variety of trade flows than Western Europe, relate to factors affecting economy e.g. comparative advantage, government policies, technology availability etc

- (c)** Describe the global inequalities in R&D expenditure in 2002 as shown in Resource 8. [3]

North has higher R&D expenditure than South, developed countries have higher R&D expenditure than South, anomaly of Australia

- (d)** Explain how Resources 7 and 8 may reflect a core-periphery relationship in the global economy. [5]

Resource 7 – greater amounts of trade flows in DC regions than LDC regions
 Resource 8 – developed countries have higher R&D expenditure than South

Higher technology and expertise in DCs allow for greater investment and trade flows than LDCs

- (e)** Using Resources 7 and 8, suggest what further information you would require for a fuller understanding of the nature of current global economic development. [7]

- Type of trade in different industries, volume of each
- Actors involved
- More specifics within each region – regional inequalities
- More up to date information

Theme 3: Sustainable Development
Squatter settlements and Re-imaging in Peru and Singapore

- 4** Resource 9 shows the distribution of squatter settlements in Lima, Peru.
 Resource 10a and 10b shows Clarke Quay, Singapore in the past and present respectively.
 Resource 11 shows a commentary on Clarke Quay, Singapore.

- (a)** Using Resource 9, compare the location and extent of squatter settlements in the districts named Metropolitan Lima and Cono Sur. [4]

Compare in terms of numbers, location, size, location

- (b)** Squatter settlements can be seen as 'slums of hope'. With reference to Resource 9, explain why living in a squatter settlement may be a positive experience for many people. [5]

Address social, economic, environmental sustainability of slums

- (c)** Identify the features in Resource 10 which show that urban reimagining has taken place. [3]

Modern new high rise building, cleanliness, streets and shelters

- (d)** Using Resource 9, 10 and 11, suggest reasons for urban re-imaging in cities. [4]

Factors for re-imaging e.g. reverse physical dilapidation, economic and social regeneration and sustainability → support with data

- (e)** Imagine you are a planning official from Metropolitan Lima who is looking into reimagining of Metropolitan Lima.

With reference to Resource 9, 10 and 11 and your own knowledge, critically evaluate the applicability of the reimagining strategies undertaken at Clarke Quay to Metropolitan Lima. [9]

Consider applicability of re-imaging strategy in various aspects including physical accessibility, economic and social ability, political capability