

Name: _____

Admission No: Class:

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2017 Promotional Examination II

Pre-University 2

GEOGRAPHY (HIGHER 2)
Paper 2 Data Response Questions

9751/02
12 September 2017

3 Hours

Additional Materials: Answer Booklet/Paper
 1 Insert

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 an HB 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 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.
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.

This document consists of 5 printed pages, 1 blank page and 1 Insert.

[Turn over

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Section A

Theme 4: Geographical Investigation

- 1** A group of Geography students are interested to investigate the effectiveness of recent state-led efforts to improve urban liveability in Singapore. They selected the neighbourhoods of Kallang and Punggol for their investigation. Kallang is an inner city neighbourhood while Punggol is a planned new town.

The group of students were allocated three days for field investigation. They have access to secondary data detailing the range of implemented stage-led efforts to improve liveability in Kallang and Punggol extracted from the URA Master Plan (2013). Resource 1 details the recent state-led efforts to improve urban liveability in Kallang. Resource 2 details the recent state-led efforts to improve urban liveability in Punggol. Resource 3 shows the survey questionnaire results that the students have collected from the neighbourhood of Kallang.

- (a)** Suggest a suitable research question for the students' investigation with reference to Resources 1 and 2, and state **three** reasons why the research question is at a suitable scale.
[4]
- (b)** Explain possible risks that the students might have to confront when conducting the research investigation and suggest ways to mitigate them. [4]
- (c)** Recommend and explain other data collection methods to supplement the findings as shown in Resource 3.
[5]
- (d)** Select a suitable data representation method and sketch resident's perception of the environmental impacts of recent state-led efforts to improve urban liveability using information as shown in Resource 3.
[3]
- (e)** Evaluate the usefulness of the investigation in understanding the impacts of recent state-led efforts to improve urban liveability in Singapore.
[9]

Section B

Theme 1: Tropical Environments

Tropical Cyclone Enawo in Madagascar

- 2** Resource 4 shows the spatial and temporal distribution of tropical cyclones in the world. Resource 5 shows information on Tropical Cyclone Enawo that hit Madagascar in March 2017. Resource 6 shows the flooding situation in Antananarivo, Madagascar on 10 March 2017 as a result of Tropical Cyclone Enawa.

Note: A tropical depression has wind speed of below 63 kilometres per hour, a tropical storm has wind speed of 63 to 118 kilometres per hour while a tropical cyclone has wind speed above 118 kilometres per hour.

- (a)** Describe the spatial and temporal distribution of tropical cyclones from 1851 to 2006 as shown in Resource 4.
[4]
- (b)** With reference to Resources 4 and 5, explain the development of Tropical Cyclone Enawo at Madagascar in March 2017.
[6]
- (c)** With reference to Resource 5, describe the distribution of impacts at Madagascar due to Tropical Cyclone Enawa.
[5]
- (d)** Using Resources 5 and 6, explain how hydrological processes could have been affected by Tropical Cyclone Enawa which resulted in river floods in Antananarivo, Madagascar.
[6]
- (e)** Explain two impacts caused by the floods due to Tropical Cyclone Enawa in Antananarivo, Madagascar as shown in Resources 5 and 6.
[4]

Theme 1: Tropical Environments**Mojave Desert**

- 3** Resource 7 shows global distribution of arid tropical climates and deserts. Resource 8 shows the climograph of Mojave Desert, California, USA. Resource 9 shows a landform found in the Mojave Desert. Resource 10 shows a newspaper excerpt of a mudslide incident in the Mojave Desert.
- (a) With reference to Resource 7, describe the distribution of Tropical Desert (BWh) climate in the world. [3]
- (b) Using Resources 7 and 8, account for the climate that Mojave Desert in California, USA has. [5]
- (c) Explain how the landform shown in Resource 9 is formed. [4]
- (d) Explain two conditions required for the formation of the landform shown in Resource 9. [4]
- (e) With reference to Resources 9, 10 and your own knowledge, evaluate the extent to which the mudslide in Mojave Desert is caused by natural factors. [9]

Theme 3: Sustainable Development

Transport Situation in Australia

- 4 Resource 11 shows the distance travelled by car vehicles in kilometres (kms) per capita in major cities of Australia from 1989 to 2010. Resource 12 shows the growth in public transport use in major cities of Australia from 2006 to 2011. Resource 13 shows the computer modelling results of estimated future traffic congestion situation by the Office of Auditor General (OAG) of Western Australia (WA), focusing on the main roads in and around Perth, Australia in the year 2015 before and after factoring in public transport use and outcomes from current projects being done to alleviate traffic problems. Resource 14 shows an infographic about the perceived and actual cost of owning a car in Western Australia (WA).
- (a) Describe the trends in the car vehicle kms per capital in the major cities of Australia as shown in Resource 11. [4]
- (b) Compare the journeys to work and overall patronage growth in public transport use in the major cities of Australia as shown in Resource 12. [3]
- (c) With reference to Resources 11 and 12, discuss the extent to which growth in public transport use can explain the trends observed in Resource 11. [5]
- (d) With reference to Resource 13, explain the impact of public transport use and projects done to alleviate traffic problems for Perth, Australia. [6]
- (e) With reference to Resources 13, 14 and your own knowledge, explain possible strategies to alleviate traffic problems in Perth, Australia. [7]

- End of Paper -

Copyright Acknowledgements:

Question 1 Resource 1 & 2	http://www.fendylee.com/master-plan-2013/archives/11-2013/3 (Last accessed: 21 August 2013)
Question 1 Resource 3	Millennia Institute
Question 2 Resource 4	http://www.geocoops.com/tropical-storms.html
Question 2 Resource 5	http://www.gdacs.org/datareport/dailymap/TC/1000341/20170310_Madagascar_TC_ENAWO.pdf (Last accessed: 10 August 2017)
Question 2 Resource 6	https://maps.mapaction.org/dataset/5338c40f-3446-4aaf-abb9-07eb7ec3edbb/resource/8e9478ba-7958-43df-a259-5e006f2d8cad/download/ma003antanarivofloods10032017-300dpi.pdf (Last accessed: 10 August 2017)
Question 3 Resource 7	http://www.geo.hunter.cuny.edu/tbw/wc.notes/15.climates.veg/climate/B/arid.seimarid.climates.world.map.jpg (Last accessed: 11 August 2017)

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Question 3 Resource 8	http://7continents1globe.com/mojave-desert/ (Last accessed: 11 August 2017)
Question 3 Resource 9	https://www.flickr.com/photos/sieren/5609982041_ (Last accessed: 11 August 2017)
Question 3 Resource 10	http://www.fox5ny.com/news/34017262-story_ (Last accessed: 11 August 2017)
Question 4 Resource 11	https://chartingtransport.files.wordpress.com/2011/10/car-vkms-per-capita.png_ (Last accessed: 14 August 2017)
Question 4 Resource 12	https://chartingtransport.files.wordpress.com/2013/02/jtw-versus-overall-pt-growth-v2.png (Last accessed: 14 August 2017)
Question 4 Resource 13	https://audit.wa.gov.au/reports-and-publications/reports/main-roads-projects-address-traffic-congestion/demand-road-network-increased-traffic-congestion-predicted-get-worse/_ (Last accessed: 14 August 2017)
Question 4 Resource 14	https://greengurus.com.au/car-sharing-is-coming-to-perth/ (Last accessed: 14 August 2017)