HWA CHONG INSTITUTION
JC2 Preliminary Examination
Higher 1

CANDIDATE NAME		**CT GROUP**	
CENTRE NUMBER		**INDEX NUMBER**	

GEOGRAPHY

8813/01

Additional Materials: Answer Paper
1 Insert
World outline map

10 September 2018
3 hours

READ THESE INSTRUCTIONS FIRST

Write your name and CT class clearly 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 or graphs.
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **four** questions in total.
Section A
Answer Question 1.
Section B
Answer Question 2.
Section C
Answer **two** questions, each from a different theme.

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.

Tie your script securely.

If you have not attempted any of the questions, you are to submit a piece of writing paper with your name, CG and question number written on it.

Section A

Theme 3 : Geographical Investigation

1 A group of 20 18 year-old students wanted to examine the factors influencing flood risk in the Thomson Road area in Singapore. They used a map showing the relief of the Thomson Road area and decided on two specific zones to do a comparative study. Factors they have identified include slope angle, land use and vegetation cover. They collected their data over the period of four days in June.

The equipment they used included:

(i) Clinometer – to measure angle of slope
(ii) Infiltrometer – to measure infiltration rate
(iii) Stop watch
(iv) 50 metre tape measure
(v) Recording sheet

Resource 1 shows a relief map of Thomson Road and the surrounding area. Resource 2 shows part of the recording sheet used in the investigation. Resource 3 shows an image from Google Earth. Resource 4 shows an image of land use along Lorong 3 Tao Payoh.

(a) Suggest a suitable hypothesis for the group investigation and explain why the hypothesis is clearly defined and at a suitable scale. [4]

(b) Select **two** areas A, B or C outlined in Resource 1 and suggest why the group might have chosen those areas for their comparative study. [4]

(c) Draw a sketch of a graph to show how the data in Resource 2 can be represented and explain its advantages. [6]

(d) Evaluate the usefulness of the data shown in Resource 3 in the investigation. [4]

(e) With reference to Resource 4, discuss how data on land use shown in Area C in Resource 1 can be collected. [7]

[Turn over

Section B

Theme 1 : Climate Change and Flooding

The El Ninõ Southern Oscillation and its impacts on Southeast Asia

2 Resource 5 shows average sea surface temperature anomalies (°C) between July-August 2015. Resource 6 shows wind speed anomalies (m/s) July to August 2015. Resource 7 shows sea level anomalies in February 2016. Resource 8 shows rice production in Southeast Asia. Resource 9 shows the effects of an El Nino shock on real GDP.

(a) Describe the distribution of sea surface temperature anomalies (°C) in Pacific Ocean in Resource 5. [3]

(b) With reference to Resource 5, explain the possible effects of the El Nino Southern Oscillation on rainfall amount and distribution in the region. [6]

(c) Explain the relationship between wind direction and sea level anomalies shown in Resources 6 and 7 respectively. [4]

(d) With reference to Resources 8 and 9, compare the impacts of an EL Nino event on Thailand and Indonesia. [4]

(e) With reference to Resources 8, 9 and your own knowledge, assess the extent of the impacts of El Nino events on Southeast Asia. [8]

[Turn over

Section C

Answer **two** questions from this section. **Either** Question 3 **or** Question 4 and **Either** Question 5 **or** Question 6.

Theme 1 : Climate Change and Flooding

3 **(a)** Explain the main differences in the characteristics of tropical rainforest (Af) and tropical savanna (Aw) climates. [9]

(b) Evaluate the role of the Hadley Cell in influencing the tropical climates. [16]

4 **(a)** Compare the drainage basin water balance in the humid and arid tropics. [9]

(b) Discuss the usefulness of flood hydrographs in the study of the flows and storages in a drainage basin. [16]

Theme 2 : Urban Change

5 **(a)** Explain the main reasons for traffic congestion in countries at low levels of development. [9]

(b) Discuss the effectiveness of attempts to manage the issue of traffic congestion. [16]

6 **(a)** Explain why there are different indices used to measure 'urban liveability' in cities. [9]

(b) To what extent can the needs of different social groups in the city be met? [16]

--- End of paper ---

Acknowledgements:
Question 1 Resource 1 @ http://en-sg.topographic-map.com/places/Singapore-6698414/
Question 1 Resource 2 @ own data
Question 1 Resource 3 @ https://thetwophilo.files.wordpress.com/2010/07/5upp-thomson-profile.jpg
Question 1 Resource 4 @ https://www.google.com.sg/
Question 2 Resource 5 @ https://www.climate.gov/
Question 2 Resource 6 @ https://www.climate.gov/
Question 2 Resource 7 @ https://phys.org/news/2016-03-jason-oceans-ongoing-el-nino.html
Question 2 Resource 8 @ http://www.thecropsite.com/articles/1458/el-nio-weather-events-affect-southeast-asias-rice-surplus/
Question 2 Resource 9 @ http://www.imf.org/