



**HWA CHONG INSTITUTION**  
**JC2 Preliminary Examinations**  
**Higher 2**

**CANDIDATE  
NAME**

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**CT GROUP**

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**CENTRE  
NUMBER**

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**INDEX  
NUMBER**

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**GEOGRAPHY**

**9730/01**

Paper 1 Physical Geography

**17 September 2014**

**3 hours**

Additional Materials: Answer Paper

1 Insert

World outline map

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**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 a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

**Section A**

Answer **all** questions.

**Section B**

Answer **two** questions, each from a different topic.

The insert contains all the Figures referred to in the question paper.

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.

Start each answer to the main questions on a fresh sheet of paper.

At the end of the test, fasten your answers in the following sections:

**Set 1 : Section A DRQ**

**Set 2 : Section B Essays**

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

## Section A

Answer **all** the questions in this section.

Questions 1, 2 and 3 carry 12 marks and Question 4 carries 14 marks.

You should allocate your time accordingly.

### Lithospheric Processes, Hazards and Management

- 1 Photographs A and B show the occurrence of the same mass movement event in Pingtung County, Taiwan in 2011.
  - (a) With reference to Photographs A and B, identify the type of mass movement and describe the nature of it. [3]
  - (b) Suggest reasons for the occurrence of the mass movement identified in (a). [4]
  - (c) Briefly describe the effects of the mass movement identified in (a) on the physical and human environment. [5]

### Atmospheric Processes, Hazards and Management

- 2 Fig. 1 shows the spatial temporal distribution and typical tracks of tropical cyclones globally.
  - (a) Using Fig. 1, describe the spatial distribution of tropical cyclones and their typical travel paths. [3]
  - (b) Account for your answer in (a). [4]
  - (c) Describe the methods you would use to measure and represent short term day-to-day weather variations during the passage of a tropical cyclone. [5]

### Hydrologic Processes, Hazards and Management

- 3 Fig 2A shows the river regimes of Rio Uruguay (South America) and Mekong (Southeast Asia) river systems. Fig. 2B shows the location of the two rivers.
  - (a) Compare the river regimes of the two rivers. [2]
  - (b) Explain the differences in the river regimes. [4]
  - (c) With reference to Fig. 2A, identify and explain the **main** issue faced by communities along the **Mekong River** and suggest strategies to address the issue. [6]

### Lithospheric and Hydrologic Processes, Hazards and Management

- 4 Photograph C shows a river flowing over granite in Zimbabwe. Photograph D shows a granite landform in Zimbabwe. Zimbabwe is a landlocked country located in Southern Africa 17°S latitude.
- (a) Describe the nature of the load and discharge of the river shown in Photograph C. [2]
  - (b) Explain how geology and channel discharge may determine the morphology of the river shown in Photograph C. [4]
  - (c) Describe the landform shown in Photograph D. [2]
  - (d) Discuss the extent to which rock type and fluvial activity influence the development of the landform shown in Photograph D. [6]

### Section B

Answer **two** questions, each from a different topic. All questions carry 25 marks.

#### Lithospheric Processes, Hazards and Management

- 5 EITHER
- (a) Define the terms 'block disintegration' and 'granular disintegration' and their effects. [9]
  - (b) Discuss the factors which lead to the formation and resultant characteristics of
    - (i) cockpit and tower karst
    - (ii) temperate tors [16]
- 5 OR
- (a) Describe and explain the main characteristics of earthquakes. [9]
  - (b) "Earthquakes are easier to mitigate than to predict". Evaluate this statement with reference to examples. [16]

#### Atmospheric Processes, Hazards and Management

- 6 EITHER
- (a) Explain how human activities have contributed to global warming. [9]
  - (b) To what extent do insolation and its seasonal variations influence the various climatic zones in tropical Africa and Asia? [16]
- 6 OR
- (a) Why is albedo higher in some parts of the world than others? [9]
  - (b) Explain how heat islands develop. To what extent can urban heat islands influence the weather experienced in cities? [16]

**Hydrologic Processes, Hazards and Management**

- 7 EITHER**    **(a)**   Explain the conditions under which fluvial deposition occurs. [9]
- (b)**   To what extent is deposition the most important process in determining channel pattern? [16]
- 7 OR**        **(a)**   Explain how water resources in a river catchment may be managed. [9]
- (b)**   Discuss why the management of river catchments has met with little success. [16]

~~ End of paper ~~