



**JURONG JUNIOR COLLEGE
JC2 GEOGRAPHY
PRELIMINARY EXAMINATION 2008**

GEOGRAPHY

9730/01

Higher 2

Paper 1

Tuesday

19 August 2008

3 hours

Name: _____

Class: _____

INSTRUCTIONS TO CANDIDATES

Write in dark blue or black pen.

You may use a soft pencil for any diagrams, graphs or rough working.

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

Section A

Answer **all** questions.

Section B

Answer two questions from different topics in section B. Please indicate whether you selected the 'either' or 'or' question. Eg. Q5 Either

Insert 1 contains all the figures referred to in the question paper.

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.

Please attach your answers to the cover page provided.

Section A

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

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

You should allocate your time accordingly.

Lithospheric Processes, Hazards and Management

1. Figure 1 shows a rock that has been weathered along its joints.

- (a) Identify and describe the outcome of weathering that is evident in Figure 1. [2]
- (b) With reference to a specific weathering process, show how it has led to the outcome above. [5]
- (c) Explain how a different weathering process from the one in (b) can result in another type of weathering outcome. [5]

Hydrologic Processes, Hazards and Management

2. Figure 2 is from a newspaper article on the Three Gorges Dam in China.

- (a) With the aid of Figure 2, show how catchment management through dam construction can create conflicts of interest. [6]
- (b) Suggest how the negative impacts highlighted in Figure 2 may be ameliorated for the affected groups. [6]

Atmospheric Processes, Hazards and Management

3. Figures 3A and 3B show the track of major hurricanes occurring in the U.S. for the periods 1971-1980 and 1991-2000.

- (a) Compare the frequency and track of hurricanes between the period 1971-1980 and 1991-2000. [4]
- (b) Account for the occurrence of hurricanes. [4]
- (c) Describe the impacts that hurricanes may bring to coastal regions. [4]

Lithospheric Processes, Hazards and Management and Hydrologic Processes, Hazards and Management

4. Figure 4 shows some of the factors that increase the risk of mass movements.

- (a) With reference to examples, explain how the following will result in a high risk of mass movements:
 - (i) Pore water pressure
 - (ii) Rock orientation
 - (iii) Density of vegetation [8]
- (b) Describe the primary fieldwork techniques you may employ to assess the occurrence of soil creep in an area. [4]
- (c) Explain how landslides can increase flood risk. [2]

Section B

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

Lithospheric Processes, Hazards and Management

- 5 **EITHER** (a) Explain the evidences for plate tectonics. [9]
- (b) To what extent is knowledge of processes occurring at plate boundaries sufficient in understanding the development of volcanoes and earthquakes? [16]
- 5 **OR** (a) Explain the characteristics of granite and limestone. [9]
- (b) Evaluate the role of rock jointing in the development of granite landforms. [16]

Atmospheric Processes, Hazards and Management

- 6 **EITHER** (a) Using a well-labelled diagram, describe the formation of trade winds. [9]
- (b) 'In general, DCs suffer less damage than LDCs from natural hazards.' Discuss the validity of this statement in the context of tropical cyclones. [16]
- 6 **OR** (a) Explain how urban areas can change the microclimate of an Area. [9]
- (b) 'The imminent threat from global warming is likely to spur countries to work together to slow down climate change'. Discuss to what extent you would agree with this statement. [16]

Hydrologic Processes, Hazards and Management

- 7 **EITHER** (a) Outline the factors affecting drainage density. [9]
- (b) 'Climate is the only influence on the operation of the hydrologic cycle in a drainage basin'. Discuss the validity of this statement. [16]
- 7 **OR** (a) Distinguish amongst the terms *dissolved load*, *suspended load* and *bedload*. [9]
- (b) Explain how channel processes may be able to account for the form of **both** meandering and braided channels. [16]

**** END OF PAPER ****