



**JURONG JUNIOR COLLEGE
JC2 GEOGRAPHY
PRELIMINARY EXAMINATIONS 2015**

GEOGRAPHY

9730/01

Higher 2

Paper 1

Thursday 27 August 2015

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.

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 each carries 12 marks and Question 4 carries 14 marks.

You should allocate your time accordingly.

Lithospheric Processes, Hazards and Management

1. Photo A shows a rock located along a coastline.

(a) Identify the weathering process that has occurred on the rock. [1]

(b) With reference to Photo A, describe the weathering process occurring on the rock. [5]

(c) Explain why chemical weathering is predominant in the humid tropics. [6]

Atmospheric Processes, Hazards and Management

2. Figure 1A shows the temperature of the London Heat Island effect in mid-May. Figure 1B shows the processes contributing to the Urban Heat Island effect in a city.

(a) With reference to Figure 1A, describe the changes in temperatures from the city centre to the periphery. [2]

(b) With reference to Figure 1B, identify and explain **THREE** conditions in the urban area that could have led to such temperature differences between the urban and rural areas. [6]

(c) Suggest **TWO** ways in which the effects of the Urban Heat Island could be minimised. [4]

Hydrologic Processes, Hazards and Management

3. Figure 2 shows three hydrographs for a stream assuming different land uses.
- (a) Suggest suitable land use labels to describe hydrographs A and B. [2]
 - (b) Describe and account for differences between the three hydrographs shown in Figure 2. [6]
 - (c) Discuss how you would conduct a fieldwork study to measure the different infiltration rates of two different areas as shown in Figure 2. [4]

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

4. Figure 3 shows the plate interactions between the Eurasian Plate and the Indian Plate.
- (a) With reference to Figure 3, describe the plate interactions at the location of the earthquake. [2]
 - (b) Using information given in Figure 3, explain the formation of the earthquake. [4]
 - (c) Briefly explain the difficulties faced in managing the impacts of earthquakes in the city of Kathmandu. [4]
 - (d) Explain how tectonic processes in Figure 3 can influence channel processes. [4]

Section B

Answer **two** questions from this section. Each question carries 25 marks.

Lithospheric Processes, Hazards and Management

5 EITHER

(a) Using examples, show how the rock cycle can explain the characteristics of igneous, sedimentary and metamorphic rocks. [9]

(b) "Rock structure is more crucial than other factors in the development of granite landforms."

Discuss the validity of the statement above. [16]

5 OR

(a) Define island arcs. Using examples, explain how they are formed. [9]

(b) "It is easier to mitigate against the effects of volcanic eruptions than to predict them."

To what extent do you agree with the statement above? [16]

Atmospheric Processes, Hazards and Management

6 EITHER

(a) Describe the formation of a tropical cyclone. [9]

(b) "The effects of tropical cyclones depend largely on their characteristics." Discuss. [16]

6 OR

(a) Explain the human and natural causes of drought. [9]

(b) "The responsibility of solving issues related to global warming lies largely in the developed countries." Discuss. [16]

Hydrologic Processes, Hazards and Management

7 EITHER

(a) Compare the characteristics of meanders and braided channels. [9]

(b) To what extent can conflicts of interest that arise from the management of drainage basins be mainly economic in nature? [16]

7 OR

(a) With the use of examples, describe how human activities can create management issues for rivers that cross national boundaries. [9]

(b) With reference to examples, assess the effectiveness of flood management measures in reducing the occurrence of river floods. [16]

**** END OF PAPER ****