VICTORIA JUNIOR COLLEGE
PRELIMINARY EXAMINATION

GEOGRAPHY Higher 2 — 9730/1

Wednesday 14th September 2016
3 hours

READ THESE INSTRUCTIONS FIRST

Write your name and class on all answer sheets that 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.

Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.
The number of marks is given in brackets [ ] at the end of each question or part question.

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.

Section A

Answer **all** questions.

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 Photograph A shows a limestone cave system in Kentucky, USA.

(a) Draw a labelled sketch to identify main features of the cave system in Photograph A. [3]

(b) Explain the role of climate and geology in influencing the development of the cave system in Photograph A. [6]

(c) Describe how the cave system in Photograph A may change over time. [3]

Atmospheric Processes, Hazards and Management

2 Fig. 1 shows the path taken by Tropical Cyclone Winston in the South Pacific in February 2016 and the Saffir-Simpson scale. Fig. 2 shows the effects of the tropical cyclone in Fiji.

(a) With reference to Fig. 1, describe the path taken by Tropical Cyclone Winston and how its strength changes with time. [4]

(b) Using Fig. 2, describe the distribution of effects of Tropical Cyclone Winston in Fiji. [4]

(c) Suggest possible challenges in responding to the effects of the cyclone in Fiji. [4]

Hydrologic Processes, Hazards and Management

3 Fig. 3 shows some characteristics of the River Thalweg in Wales.

(a) Describe the long profile of the River Thalweg in Fig. 3. [3]

(b) With reference to Fig. 3, describe the change in the dominant particle size deposited with distance downstream. [1]

(c) Account for your answer in (b). [4]

(d) With reference to Fig. 3, account for the presence of meanders and braided channels between Sites B and C. [4]

Lithospheric and Hydrologic Processes, Hazards and Management

4 Fig. 4 shows the distribution of rock types in Singapore.

(a) With reference to Fig. 4, describe the distribution of rock types in Singapore. [3]

(b) Describe the differences between sedimentary rocks and igneous rocks. [4]

(c) Explain how geology can influence surface and sub-surface stores. [4]

(d) Suggest and explain **one** other factor that can influence the nature of stores. [3]

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 factors affecting weathering. [9]

(b) To what extent are the landforms associated with convergent and divergent plate margins different? [16]

5 Or

(a) Describe and explain block disintegration and granular disintegration. [9]

(b) 'The impacts of mass movements are hazardous'. Discuss. [16]

Atmospheric Processes, Hazards and Management

6 Either

(a) Describe the Hadley Cell and discuss how its seasonal movement affects weather in the tropics. [9]

(b) Explain the enhanced greenhouse effect and examine the impacts of climate change. [16]

6 Or

(a) With reference to examples, explain the causes of droughts. [9]

(b) Discuss the challenges in managing climate change. [16]

Hydrologic Processes, Hazards and Management

7 Either

(a) Distinguish the conditions for Hortonian Overland Flow and Saturation Overland Flow. [9]

(b) Discuss how conflicts of interests may arise between different users within a drainage basin. [16]

7 Or

(a) Explain how floods may be a seasonal occurrence. [9]

(b) 'The impacts of floods will vary within a drainage basin'. Discuss. [16]