



B O A R D O F S T U D I E S
NEW SOUTH WALES

2004

**HIGHER SCHOOL CERTIFICATE
EXAMINATION**

Geography

General Instructions

- Reading time – 5 minutes
- Working time – 3 hours
- Write using black or blue pen
- Board-approved calculators may be used
- A Stimulus Booklet is provided with this paper
- Write your Centre Number and Student Number at the top of pages 9, 11 and 13

Total marks – 100

Section I Pages 2–6

15 marks

- Attempt Questions 1–15
- Allow about 25 minutes for this section

Section II Pages 9–14

25 marks

- Attempt Questions 16–18
- Allow about 45 minutes for this section

Section III Page 15

60 marks

- Attempt Questions 19–21
- Allow about 1 hour and 50 minutes for this section

Section I

15 marks

Attempt Questions 1–15

Allow about 25 minutes for this section

Refer to the Stimulus Booklet

Use the multiple-choice answer sheet.

Select the alternative A, B, C or D that best answers the question. Fill in the response oval completely.

Sample: $2 + 4 =$ (A) 2 (B) 6 (C) 8 (D) 9
A B C D

If you think you have made a mistake, put a cross through the incorrect answer and fill in the new answer.

A B C D

If you change your mind and have crossed out what you consider to be the correct answer, then indicate the correct answer by writing the word *correct* and drawing an arrow as follows.

A B C D
correct ↙

Refer to Source A to answer Question 1.

- 1 Which pair of photographs demonstrates the cultural authority of world cities?
- (A) Broadway Billboard, New York; and Dorothy Chandler Concert Hall, Los Angeles
 - (B) Broadway Billboard, New York; and Hong Kong Central Business District
 - (C) Buckingham Palace, London; and New York Stock Exchange
 - (D) Dorothy Chandler Concert Hall, Los Angeles; and New York Stock Exchange

Refer to Source B to answer Questions 2–3.

- 2 What is the difference in the percentage of water used for industry between Australia and USA?
- (A) 23%
 - (B) 26%
 - (C) 33%
 - (D) 36%
- 3 What is the ratio of domestic to agricultural water use in Japan?
- (A) 1 : 1
 - (B) 1 : 2
 - (C) 1 : 3
 - (D) 1 : 4
- 4 Which statement best describes the term *exurbanisation*?
- (A) A process whereby people move from rural areas to the city to establish economic links
 - (B) A process whereby people move from the city to rural areas, cutting all of their economic links with the city
 - (C) A process whereby people move from rural areas into inner city areas to establish an urban way of life
 - (D) A process whereby people move from the city to rural areas, but continue to maintain an urban way of life

Refer to Source D to answer Questions 5–8.

- 5** What is the aspect of the slope in AR 7761?
- (A) N
 - (B) NE
 - (C) SE
 - (D) SW
- 6** What is the local relief between the spot height in AR 8061 and the spot height in AR 8760?
- (A) 88 m
 - (B) 221 m
 - (C) 309 m
 - (D) 323 m
- 7** Which of the following can be seen when looking directly north from the western edge of the dam wall at GR 718534?
- (A) Kelso, Rasmussen, rubbish tip (AR 7271)
 - (B) Kelso, power transmission lines, Mount Louisa (AR 7168)
 - (C) CSIRO (AR 7563), Mount Louisa (AR 7168), James Cook University (AR 7462)
 - (D) Mount Louisa (AR 7168), power transmission lines, James Cook University (AR 7462)
- 8** What is the average density of buildings in the area bounded by eastings 71 and 73 and northings 67 and 69?
- (A) 4 per km²
 - (B) 8 per km²
 - (C) 14 per km²
 - (D) 16 per km²

Refer to Sources C and D to answer Question 9.

- 9** Which of the following is the most likely reason for the change in landuse since 1968 centred on AR 9078?
- (A) Employment at CSIRO
 - (B) Employment at the Port of Townsville
 - (C) Employment at James Cook University
 - (D) Employment at the Department of Defence

Refer to Source E to answer Questions 10–13.

- 10** What is the air pressure at *Y*?
- (A) Less than 992 hectopascals
 - (B) Greater than 1008 hectopascals
 - (C) Greater than 988 and less than 992 hectopascals
 - (D) Greater than 1008 hectopascals and less than 1012 hectopascals
- 11** What is the wind direction at *X*?
- (A) North-east
 - (B) North-west
 - (C) South-east
 - (D) South-west
- 12** Which of the following best describes the likely weather conditions associated with the passage of the weather feature marked *SS*?
- (A) Cloudy, warmer and still days
 - (B) Cloudy, cooler and windy days
 - (C) Clear, warmer and windy days
 - (D) Clear, cooler and still days
- 13** What is the difference in longitude between point *X* and point *Y*?
- (A) 1 degree
 - (B) 7 degrees
 - (C) 27 degrees
 - (D) 34 degrees

Refer to Source F to answer Questions 14–15.

14 How many people are employed in the primary employment sector in Thailand?

- (A) 9 million
- (B) 19 million
- (C) 29 million
- (D) 31 million

15 Which of the following statements is most correct?

- (A) Myanmar has a larger workforce than has Thailand.
- (B) Indonesia has fewer people working in the tertiary employment sector than has Australia.
- (C) Myanmar has a larger percentage of its workforce employed in the secondary employment sector than has Australia.
- (D) Myanmar has a larger percentage of its workforce employed in the secondary employment sector than has Thailand.

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Geography

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Centre Number

Section II

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Student Number

25 marks

Attempt Questions 16–18

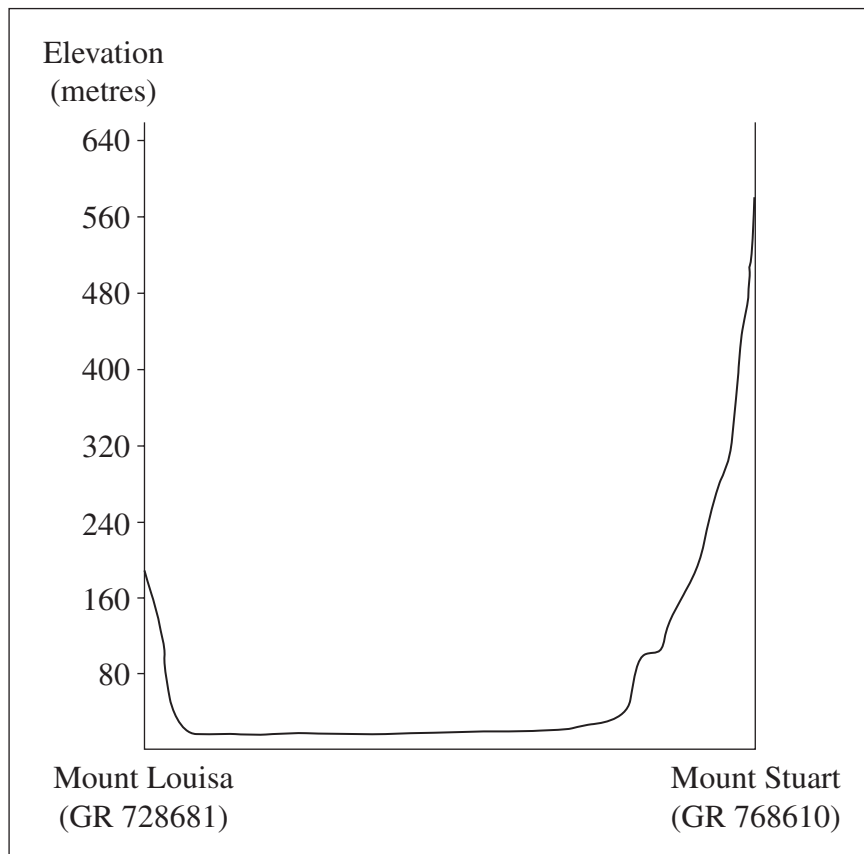
Allow about 45 minutes for this section

Use the Stimulus Booklet and your knowledge of geography to answer Questions 16–18 in the spaces provided.

Marks

Question 16 (7 marks)

Cross-section from Mount Louisa to Mount Stuart



- (a) With reference to the cross-section and Source D, calculate the vertical exaggeration of the cross-section. 1

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Question 16 continues on page 10

Question 16 (continued)

Refer to Sources C and D to answer parts (b)–(d).

- (b) Identify TWO changes in landuse that have occurred since 1968 along the transect between the spot heights of Mount Louisa (GR 728681) and Mount Stuart (GR 768610). **1**

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- (c) Outline ONE biophysical reason for a change in urban development since 1968 in the north-western quadrant of the map. **2**

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- (d) Identify and explain ONE change to the flow of the Ross River since 1968. **3**

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End of Question 16

Geography

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Centre Number

Section II (continued)

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Student Number

Marks

Question 17 (8 marks)

- (a) Using examples from Source A, describe the role of world cities as centres of economic authority. **4**

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Question 17 continues on page 12

Question 17 (continued)

Time collapse of the world transport and communication systems



- (b) Describe the relationship between the changes evident in the diagram and the operation of the global networks of world cities.

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End of Question 17

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Centre Number

Section II (continued)

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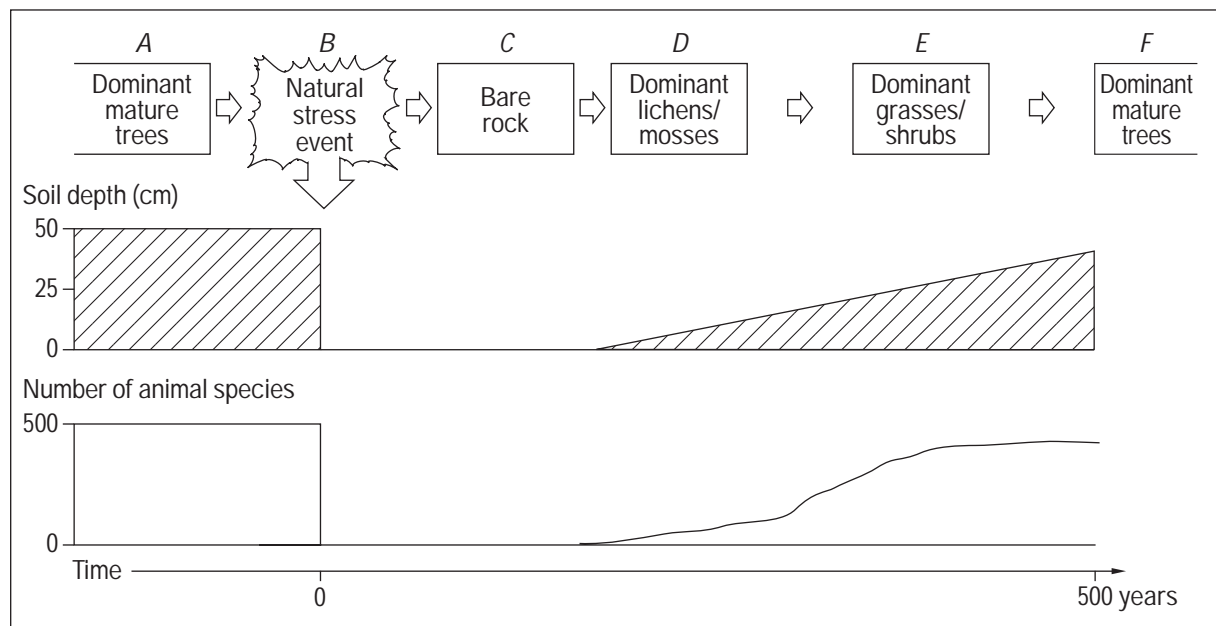
Student Number

Marks

Question 18 (10 marks)

Refer to the diagram to answer parts (a)–(b).

Possible changes in an ecosystem over time



(a) Identify ONE natural stress that could have occurred at *B*. 1

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(b) Describe changes in the functioning of the ecosystem that are likely to occur over the 500 years following the natural stress event at *B*. 3

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Question 18 continues on page 14

Question 18 (continued)

- (c) Identify and describe ONE factor that affects the vulnerability and resilience of ecosystems. 3

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- (d) Identify ONE traditional management strategy or practice, and suggest why it can be effective in the management of ecosystems. 3

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End of Question 18

Geography

Section III

60 marks

Attempt Questions 19–21

Allow about 1 hour and 50 minutes for this section

Answer each question in a SEPARATE writing booklet. Extra writing booklets are available.

In your answers you will be assessed on how well you:

- present a sustained, logical and well-structured answer to the question
 - communicate geographical information, ideas and issues
 - refer to appropriate case studies, illustrative examples and the Stimulus Booklet where appropriate
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Question 19 (20 marks)

Describe the spatial patterns and dimensions of ONE case study of an ecosystem at risk, and analyse the negative impacts of human activity on this ecosystem.

Question 20 (20 marks)

Explain the relationships between the urban dynamics and the changing economic character of a large city in the developed world.

Question 21 (20 marks)

Assess the environmental, social and economic impacts of ONE economic activity in a global context.

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