

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

2009

**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 2–5

15 marks

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

Section II Pages 9–14

25 marks

- Attempt Questions 16–19
- Allow about 45 minutes for this section

Section III Page 15

60 marks

- Attempt Questions 20–22
- 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 for Questions 1–15.

Refer to Source A to answer Questions 1–4.

1 A hiking accident has occurred at the footbridge at GR 218898.

What is the grid reference of the closest helicopter landing ground?

- (A) GR 210884
- (B) GR 221874
- (C) GR 221885
- (D) GR 230886

2 You are camping at GR 206895. What is the aspect of the slope?

- (A) South-East
- (B) South-West
- (C) North-East
- (D) North-West

3 What is the approximate area of Rara Lake?

- (A) 1 km²
- (B) 10 km²
- (C) 20 km²
- (D) 100 km²

- 4** What is the average gradient between the spot height at GR 218888 and the point where the stream enters Rara Lake at GR 215884?
- (A) 4.1
 - (B) 1:4
 - (C) 1:24
 - (D) 0.24

Refer to Source B to answer Questions 5–7.

- 5** What is the latitude and longitude of Kathmandu?
- (A) 85°19'E 27°49'N
 - (B) 85°19'E 27°49'S
 - (C) 27°49'S 85°19'E
 - (D) 27°49'N 85°19'E
- 6** What is the bearing of Rara Lake from Pokhara?
- (A) 130°
 - (B) 140°
 - (C) 310°
 - (D) 320°
- 7** What kind of map is Source B?
- (A) Cadastral
 - (B) Choropleth
 - (C) Navigational
 - (D) Topographic

Refer to Source C to answer Questions 8–10.

8 What is the length of the aluminium cableway from the ALBA Marine Terminal Jetty to the ALBA Aluminium Smelter in the southeast quadrant of the map?

- (A) 9.2 km
- (B) 9.6 km
- (C) 10.1 km
- (D) 10.4 km

9 You are travelling from $26^{\circ}09'N$ $50^{\circ}37'E$ to Bahrain International Airport, following highways 31, 34, 37 and 22.

Which sequence of land use features would you see on your journey?

- (A) Irrigated area; salt marsh; built-up area; causeway
- (B) Oil storage; causeway; industrial area; built-up area
- (C) Built-up area; oil storage; coral reef; industrial area
- (D) Causeway; built-up area; golf course; causeway

10 What human activities would have the most direct impact on the coral reef ecosystem in the southeast quadrant of the map?

- (A) Oil refining and aluminium smelting
- (B) Irrigated agriculture and horse racing
- (C) Golf course maintenance and ship building
- (D) Aluminium smelting and international hotels

11 Refer to Sources D and F. The Pearl Roundabout is located at $26^{\circ}14'N$ $50^{\circ}35'E$.

What direction was the photographer facing when the photograph in Source F was taken?

- (A) East
- (B) North
- (C) South
- (D) West

Refer to Source G to answer Questions 12–13.

12 Which of these countries has the smallest Islamic population?

- (A) Australia
- (B) Bahrain
- (C) United Kingdom
- (D) USA

13 Which of these countries has the greatest percentage of population that is Islamic?

- (A) Kuwait
- (B) Bahrain
- (C) Indonesia
- (D) Saudi Arabia

Refer to Sources G and H to answer Questions 14–15.

14 Why is London a less important centre than Al Manama in the Islamic financial hierarchy?

- (A) London has fewer Islamic financial services.
- (B) Bahrain has a larger population than the United Kingdom.
- (C) Al Manama is only connected with centres in the Islamic world.
- (D) The United Kingdom has a smaller Islamic population than Bahrain.

15 With which city does Al Manama have the greatest volume of intercity financial connections?

- (A) Alger
- (B) Dubai
- (C) Karachi
- (D) Istanbul

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Geography

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Centre Number

Section II

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Student Number

25 marks

Attempt Questions 16–19

Allow about 45 minutes for this section

Use the Stimulus Booklet and your knowledge of geography to answer Questions 16–19 in the spaces provided.

Question 16 (8 marks)

(a) From Source C, identify ONE feature that could be classified as an ecosystem at risk and ONE feature that could be classified as an economic enterprise.

(i) Ecosystem at risk **1**

(ii) Economic enterprise **1**

(b) From Source C, give reasons for the location of the economic enterprise named in part (a). **2**

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Question 16 continues on page 10

Question 16 (continued)

- (c) (i) Generate a focus question that could be used in fieldwork to investigate ONE urban dynamic in the area shown in Source C. **1**

Focus question:
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- (ii) Explain how the primary data will be gathered. **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

Question 17 (8 marks)

Please turn over

Question 17 (8 marks)

The diagram shows a precis map of Source D.



Legend Built-up area Sandbanks and coral reef — Original coastline
 Reclaimed land Dredged channels

(a) Use Sources C and D to complete the legend for the precis map and then shade the map appropriately. **3**

(b) Referring to the precis map, identify a change between Source C and Source D and explain how an ecosystem has been affected. **3**

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(c) With reference to Sources C and D, what would be the effect of long-term sea level rise on Al Manama's coastal ecosystems? **2**

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End of Question 17

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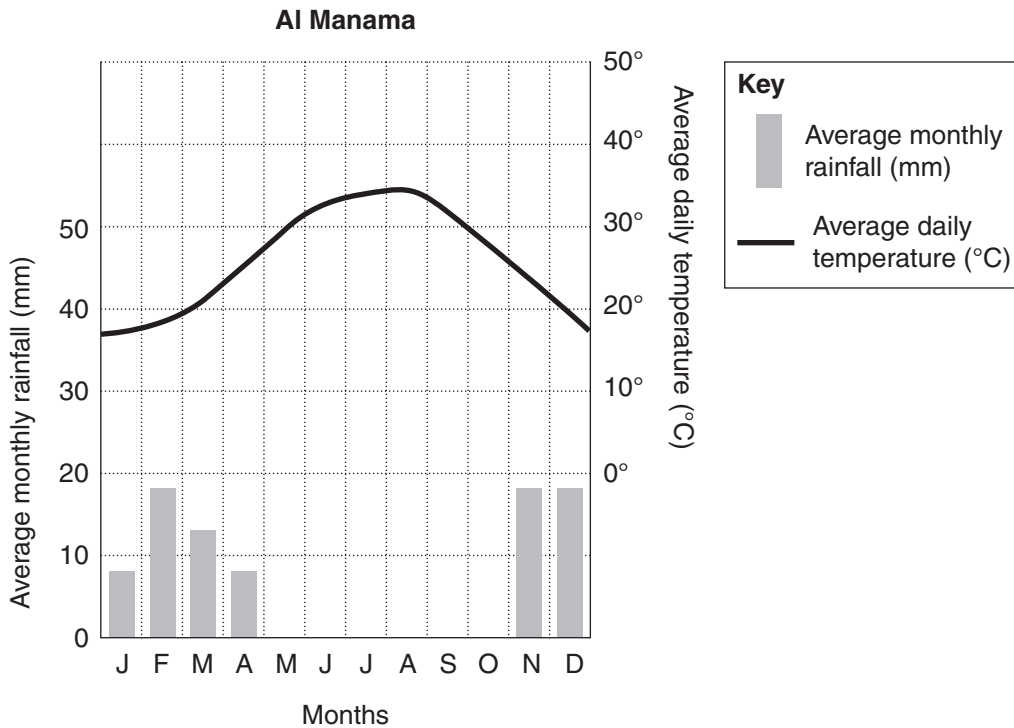
Centre Number

Section II (continued)

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Question 18 (3 marks)



Explain how the pattern of climate shown in the graph could affect outdoor tourist activities in the Al Manama region.

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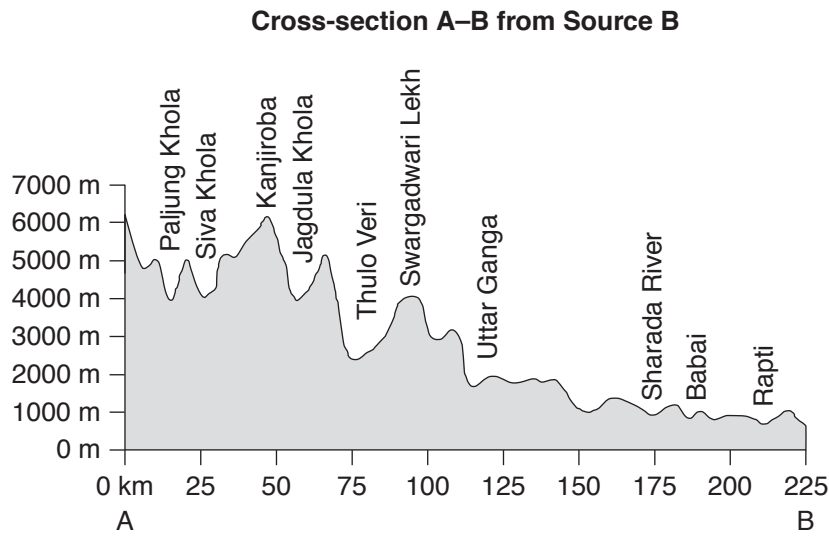
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Question 19 (6 marks)

The diagram shows the cross-section A to B from Source B.



- (a) Calculate the vertical exaggeration of the cross-section shown above. **2**

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- (b) By referring to Sources A, B and E, describe the effects of latitude, altitude, precipitation and vegetation on the Rara Lake environment. **4**

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Geography

Section III

60 marks

Attempt Questions 20–22

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 20 (20 marks)

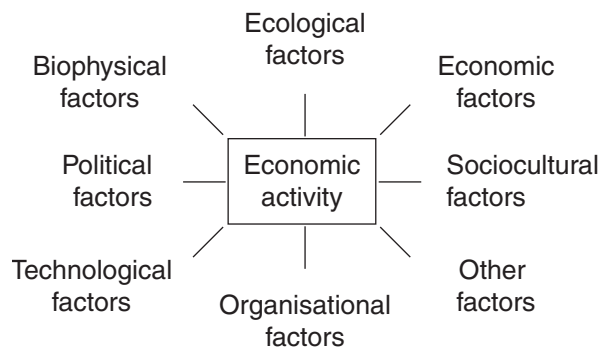
Demonstrate why world cities are powerful centres of economic and cultural authority.

Question 21 (20 marks)

Evaluate the importance of ecosystem management and protection.

Question 22 (20 marks)

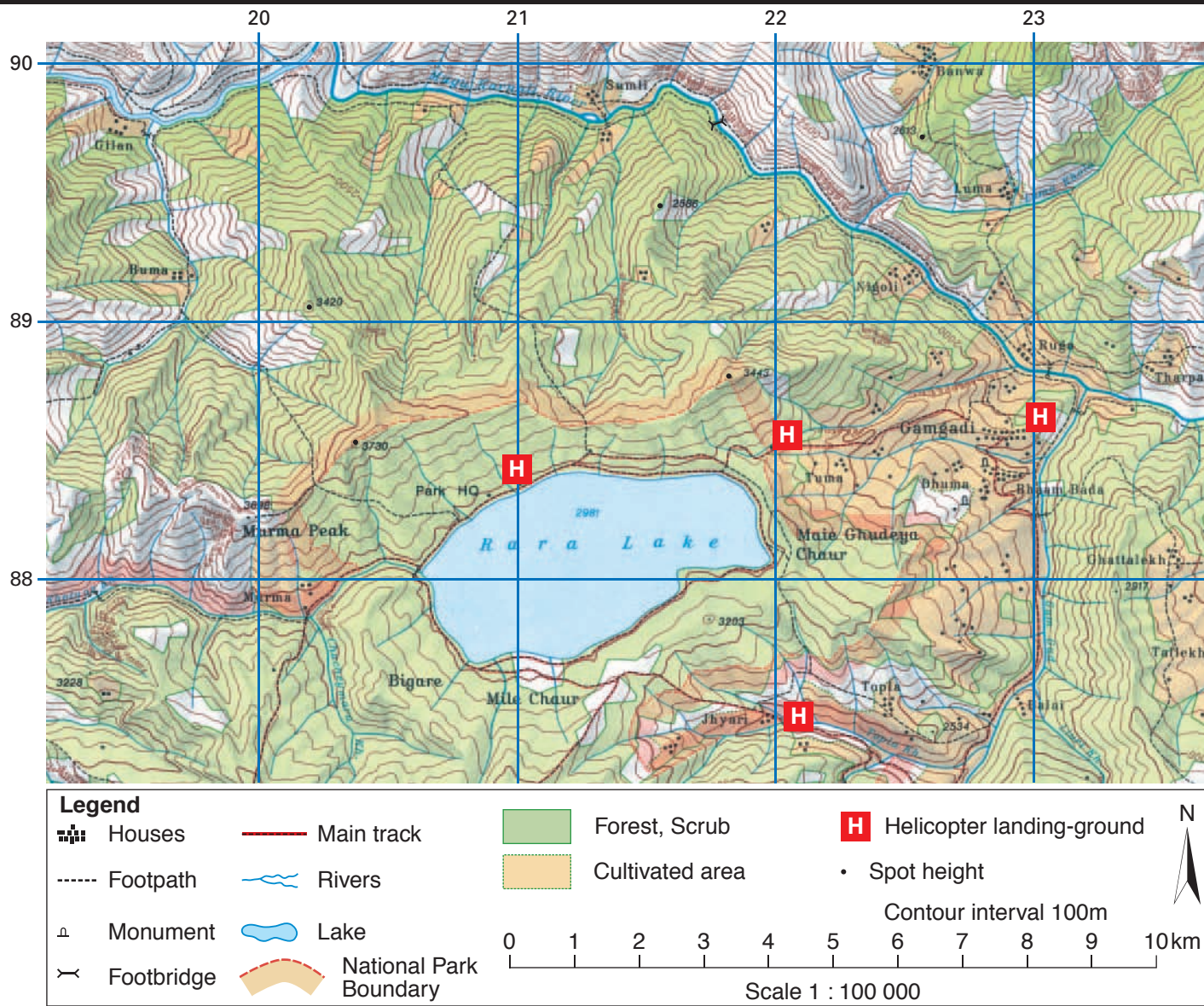
Explain possible future directions of an economic activity with reference to THREE of the factors shown in the diagram.



End of paper

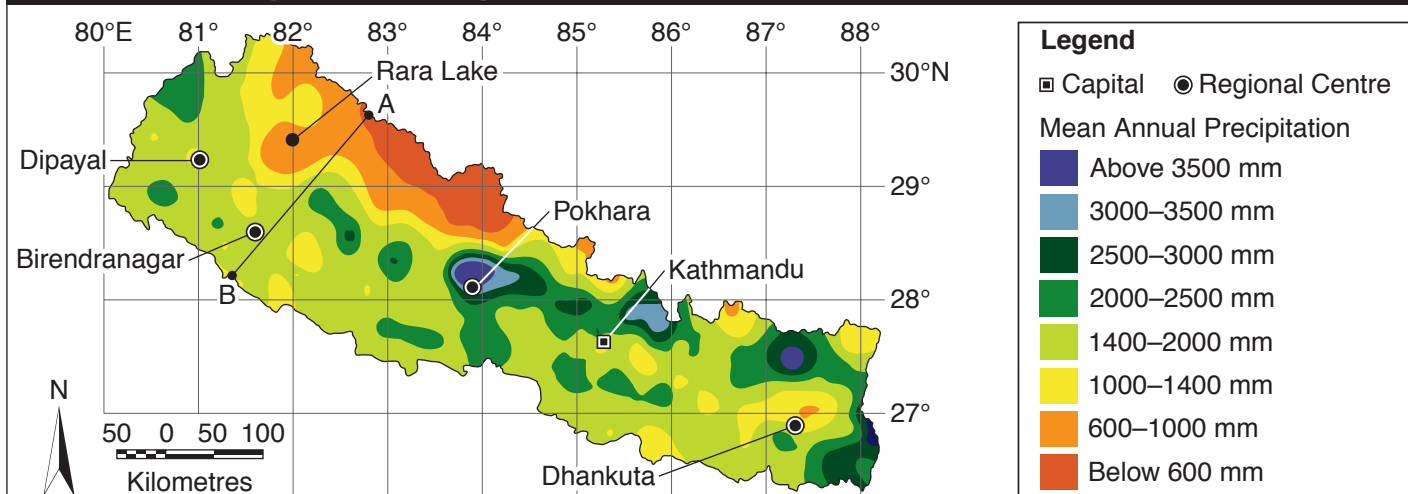
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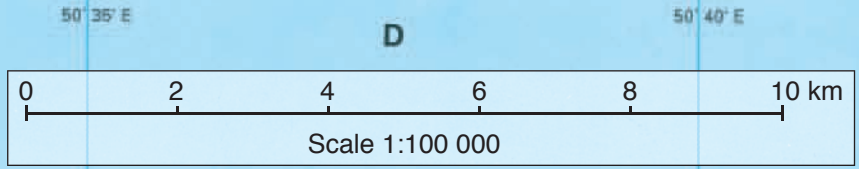
Source A – Rara Lake, Nepal



Reproduced with the permission of Dr Ludwig Braun, Kommission für Glaziologie, Arbeitsgemeinschaft für Vergleichende Hochgebirgsforschung, Munich

Source B – Precipitation in Nepal





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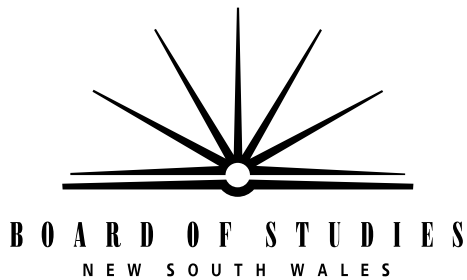
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Centre Number

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Student Number

Geography

WRITING BOOKLET

Question Number

Number of booklets
used for this question

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Instructions

- Write your Centre Number and Student Number in the boxes provided on this page.
- In the box provided write the number of the question attempted in this booklet.
- You may ask for an extra Writing Booklet to answer this question if you need more space.
- If you have not attempted this question, you must still hand in the Writing Booklet, with the words 'NOT ATTEMPTED' written clearly on the front cover.
- Write using black or blue pen.
- Do NOT remove any pages from this booklet.

You may NOT take any writing booklets, used or unused, from the examination room.

A large rectangular area consisting of 22 horizontal lines, intended for writing or drawing. The lines are evenly spaced and cover most of the page's height.

Additional writing space on back page.

Lined writing area with 25 horizontal lines.

You may ask for an extra Writing Booklet if you need more space.