

BOARD OF STUDIES
NEW SOUTH WALES

HIGHER SCHOOL CERTIFICATE EXAMINATION

1999
GEOGRAPHY
2/3 UNIT (COMMON)

*Time allowed—Three hours
(Plus 5 minutes reading time)*

DIRECTIONS TO CANDIDATES

- You should receive this paper with the Broadsheet.
- Board-approved calculators may be used.

Section I (25 marks)

- **Part A** (15 marks) Attempt ALL questions.

Complete your answers in either blue or black pen on the Answer Sheet provided.

- **Part B** (10 marks) Attempt BOTH questions.

Answer the questions in the spaces provided in this paper.

Section II (75 marks)

- Attempt THREE questions, each from a different Option.
- Each question is worth 25 marks.
- Answer each question in Section II in a SEPARATE Writing Booklet.
- You may ask for extra Writing Booklets if you need them.

SECTION I

(25 Marks)

PART A

(15 Marks)

The questions in Part A refer to the Broadsheet.

Allow about 25 minutes for this Part.

Attempt ALL questions.

Each question is worth 1 mark.

Instructions for answering multiple-choice questions

- Complete your answers in either blue or black pen.
- 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
↙

Use the table of **National statistics** on page 1 of the Broadsheet to answer Question 1.

- 1** What was the approximate difference between the population density of Australia and that of Ireland in 1995?
- (A) 25 persons per km²
 - (B) 50 persons per km²
 - (C) 75 persons per km²
 - (D) 100 persons per km²

Use the graph of **Employment by sector—Ireland** and the pie chart **Employment in Ireland, 1995** on page 1 of the Broadsheet to answer Question 2.

- 2** How many people were employed in services in 1995?
- (A) 61 910
 - (B) 75 910
 - (C) 259 910
 - (D) 750 910

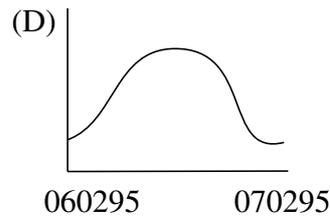
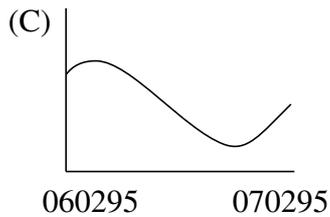
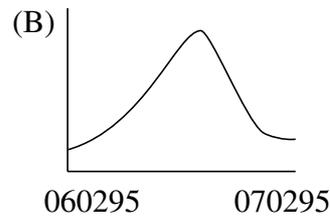
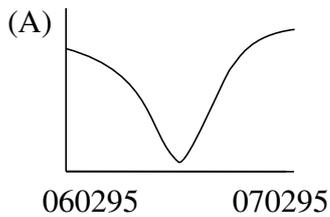
Use the graph of **Energy sources—Ireland** on page 1 of the Broadsheet to answer Question 3.

- 3** Which energy source had the greatest proportional change between 1980 and 1995?
- (A) Hydro
 - (B) Oil
 - (C) Coal
 - (D) Natural gas

Use the map of **Dublin City and District** on pages 2 and 3 of the Broadsheet to answer Questions 4 to 10.

- 4** What is the approximate area of the reservoir centred at GR 199269?
- (A) 200 m²
 - (B) 0.2 km²
 - (C) 2.0 km²
 - (D) 20 km²
- 5** What is the average gradient from GR 120220 to GR 130210?
- (A) 1 : 5
 - (B) 1 : 10
 - (C) 1 : 15
 - (D) 1 : 20
- 6** What are the latitude and longitude of North Bull Lighthouse in AR 2334?
- (A) 53° 22' 0" N 6° 8' 0" W
 - (B) 53° 22' 37" W 6° 8' 36" N
 - (C) 53° 20' 32" N 6° 8' 36" W
 - (D) 53° 20' 32" N 6° 8' 22" E
- 7** What is the bearing from the castle in AR 0628 to the castle in AR 0326?
- (A) 55°
 - (B) 140°
 - (C) 235°
 - (D) 240°
- 8** What is the aspect of the slope in AR 1421?
- (A) SW
 - (B) SE
 - (C) NW
 - (D) NE

- 9 What is the shape that best represents the cross-section from GR 060295 to GR 070295?



- 10 If you were standing at Holy Well in AR 1021 looking in a north-westerly direction, which is the most distant point you could see?
- (A) Ballinascorney Lower AR 0823
 (B) Tallaght Hill AR 0525
 (C) Ballymaice AR 0723
 (D) Saggart Teach Sagard AR 0326

Use the **Dublin City and District** map and the photograph of **DUBLIN CBD** on pages 2 and 3 of the Broadsheet to answer Questions 11 and 12.

- 11 What is the grid reference of the railway bridge in the photograph of the Dublin CBD?
- (A) 130344
 (B) 163345
 (C) 181329
 (D) 078326
- 12 At approximately what time of the day was the photograph taken?
- (A) Early morning
 (B) Mid-morning
 (C) Noon
 (D) Afternoon

Use the **Synoptic chart—Western Europe** on page 4 of the Broadsheet to answer Question 13.

13 What is the wind direction at Dublin?

- (A) WNW
- (B) ENE
- (C) WSW
- (D) SSW

Use the **Landforms—British Isles** and **Climate data—British Isles** on page 4 of the Broadsheet to answer Questions 14 and 15.

14 Which one of the following best explains the annual rainfall of Dublin relative to the rest of Ireland?

- (A) Convergence
- (B) Frontal activity
- (C) Convective air flow currents
- (D) Orographic effect

15 What are the typical summer and winter temperatures experienced in Dublin?

- (A) Summer temperatures below 15°C and winter temperatures above 5°C.
- (B) Summer temperatures above 15°C and winter temperatures below 5°C.
- (C) Summer temperatures above 15°C and winter temperatures above 5°C.
- (D) Summer temperatures below 15°C and winter temperatures below 5°C.

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MARKER'S USE ONLY**STUDENT NUMBER****1999****HIGHER SCHOOL CERTIFICATE EXAMINATION****GEOGRAPHY****2/3 UNIT (COMMON)—SECTION I**

CENTRE NUMBER**PART B**

(10 Marks)

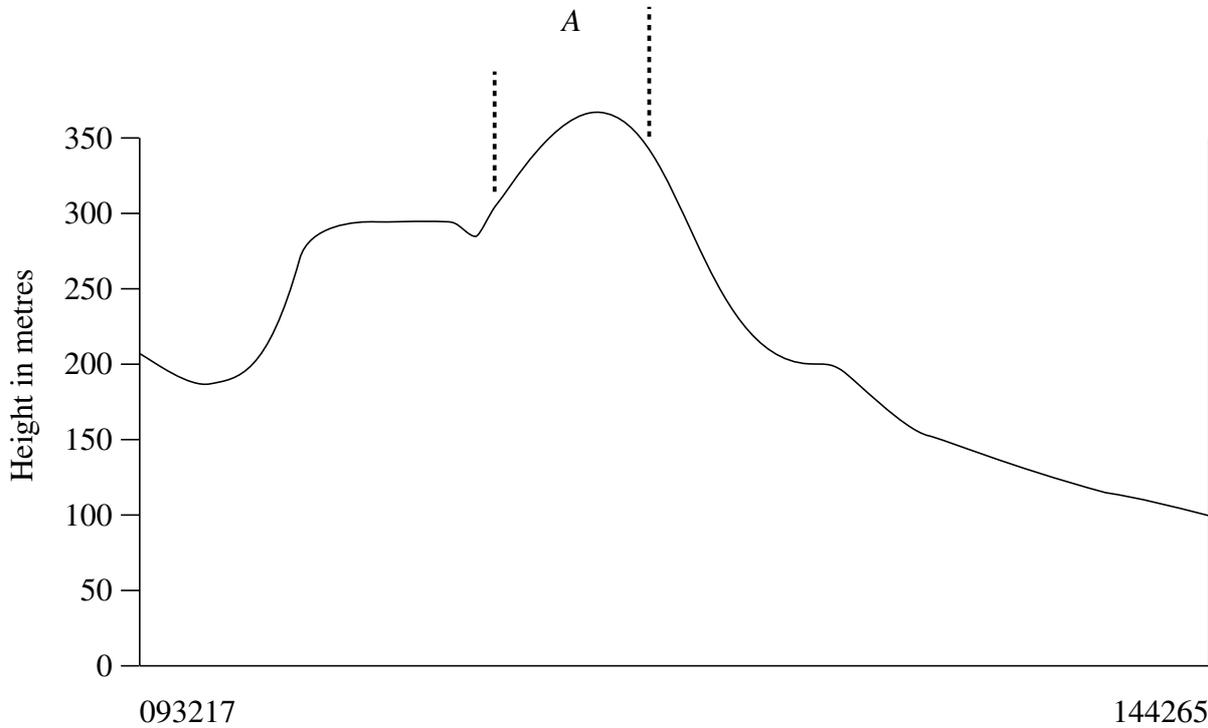
Allow about 20 minutes for this Part.

Attempt BOTH questions.

Answer the questions in the spaces provided in this paper.

Please turn over

16 Use the following cross-section taken from the Dublin City and District map on pages 2 and 3 of the Broadsheet to answer Question 16.



(a) Express the vertical scale of the cross-section as a ratio. 1

.....

(b) Calculate the vertical exaggeration of the cross-section. 1

.....

(c) Identify the land use at A on the cross-section. 1

.....

(d) Examine the topography at location A on the cross-section. Describe TWO problems that could have occurred as a result of the land use you identified in part (c). 2

(i)

.....

.....

(ii)

.....

.....

17 Using a site on the cross-section in Question 16, show how you would investigate a contemporary geographic issue using fieldwork. Answer the questions at each stage in the flowchart.

STAGE 1

(a) Identify a geographic issue you could investigate using fieldwork.

Issue:

.....

(b) Develop a focus question you could ask to guide your investigation.

.....

.....

2



STAGE 2

(c) State TWO methods for collecting primary data to investigate the issue identified in Stage 1.

(i)

(ii)

1



STAGE 3

(d) Identify ONE group that could use the findings of your research.

.....

(e) For what purpose might this group use these research findings?

.....

.....

2

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1999
HIGHER SCHOOL CERTIFICATE EXAMINATION
GEOGRAPHY
2/3 UNIT (COMMON)—SECTION II

SECTION II—OPTIONS

Marks

(75 Marks)

Attempt **THREE** questions, each from a different Option.

Each question is worth 25 marks.

Allow about 45 minutes for each question.

Answer each question in a **SEPARATE** Writing Booklet.

Where appropriate, candidates should illustrate answers with maps, diagrams, and/or reference to fieldwork.

OPTION 1 LARGE CITIES

EITHER

- 18** Using the stimulus material on the Broadsheet and your knowledge of large cities, write an extended response on:

The roles of large cities.

In your response:

- | | |
|---|-----------|
| (a) name and locate your major study of ONE large city of at least two million people; | 2 |
| (b) describe the roles of the city of Dublin; | 7 |
| (c) compare and contrast the roles of the large city you have studied with the roles of the city of Dublin. | 16 |

OR

- 19** With reference to a large city of at least two million people you have studied, examine the changes in urban processes that have occurred over time and space and explain the role of government in these processes. **25**

OPTION 2 FRAGILE ECOSYSTEMS**Marks**

EITHER

- 20** Using the stimulus material on the Broadsheet and your knowledge of fragile ecosystems, write an extended response on:

Ecosystem vulnerability and protection.

In your response:

- (a) identify THREE examples of human-induced ecosystem change; **3**
- (b) for the THREE examples identified in part (a), explain the possible causes of their vulnerability; **10**
- (c) using material from the Broadsheet and sample studies, discuss the rationale for the protection of ecosystems. **12**

OR

- 21** With reference to sample studies, examine why some ecosystems are vulnerable to human-induced change and explain the consequences of stress on these ecosystems. **25**

OPTION 3 NATURAL RESOURCES**Marks**

EITHER

- 22** Using the stimulus material on the Broadsheet and your knowledge of natural resources, write an extended response on:

Issues related to the use of natural resources.

In your response:

- | | |
|---|-----------|
| (a) identify ONE renewable, ONE recyclable and ONE exhaustible resource from the Broadsheet; | 3 |
| (b) using information from the Broadsheet, describe how the use of one of the resources identified in part (a) has changed over time; | 7 |
| (c) using material from the Broadsheet and sample studies, analyse environmental, social, political, economic and technological issues related to the use of natural resources. | 15 |

OR

- 23** With reference to sample studies, examine the uneven distribution of natural resources over time and space and explain the management strategies used to overcome the problems resulting from this uneven distribution. **25**

Please turn over

OPTION 4 PRODUCTIVE ACTIVITY**Marks**

EITHER

- 24** Using the stimulus material on the Broadsheet and your knowledge of a productive activity, write an extended response on:

The factors affecting the nature and distribution of a productive activity.

In your response:

- | | |
|---|-----------|
| (a) identify a productive activity you have studied; | 2 |
| (b) compare the factors affecting the productive activity identified in part (a) with those affecting productive activity in Ireland; | 10 |
| (c) discuss how these factors affect the nature and distribution of the productive activity you have studied. | 13 |

OR

- | | |
|---|-----------|
| 25 With reference to ONE production unit (such as a farm, factory or service provider) you have studied, examine the interactions between this production unit and its biophysical and human environments and explain how this interaction has impacted on the nature of production. | 25 |
|---|-----------|

End of paper