

### **JANUARY 1999**

### PROVINCIAL EXAMINATION

### MINISTRY OF EDUCATION

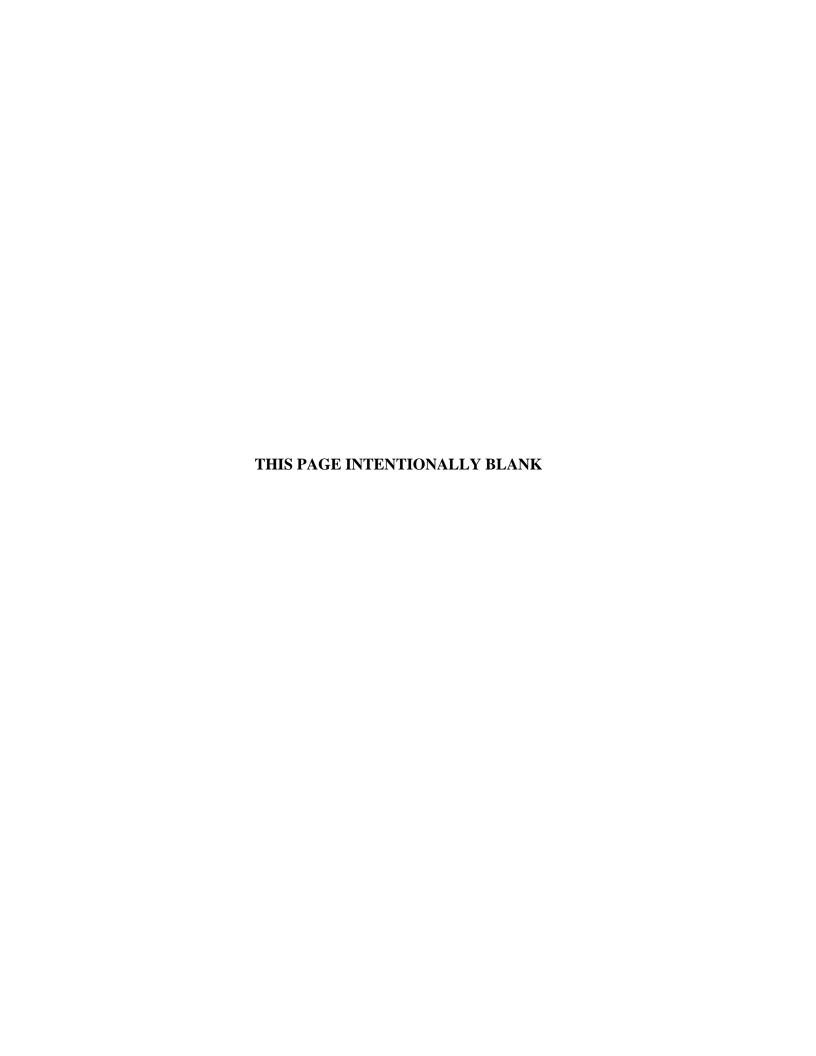
# **GEOGRAPHY 12**

### GENERAL INSTRUCTIONS

- 1. Insert the stickers with your Student I.D. Number (PEN) in the allotted spaces above and on the back cover of this booklet. Under no circumstance is your name or identification, other than your Student I.D. Number, to appear on this booklet.
- 2. Ensure that in addition to this examination booklet, you have a **Data Booklet** and an **Examination Response Form**. Follow the directions on the front of the Response Form.
- 3. **Disqualification** from the examination will result if you bring books, paper, notes or unauthorized electronic devices into the examination room.
- 4. All multiple-choice answers must be entered on the Response Form using an **HB pencil**. Multiple-choice answers entered in this examination booklet will **not** be marked.
- 5. For each of the written-response questions, write your answer in **ink** in the space provided in this booklet.
- 6. When instructed to open this booklet, **check the numbering of the pages** to ensure that they are numbered in sequence from page one to the last page, which is identified by

### **END OF EXAMINATION** .

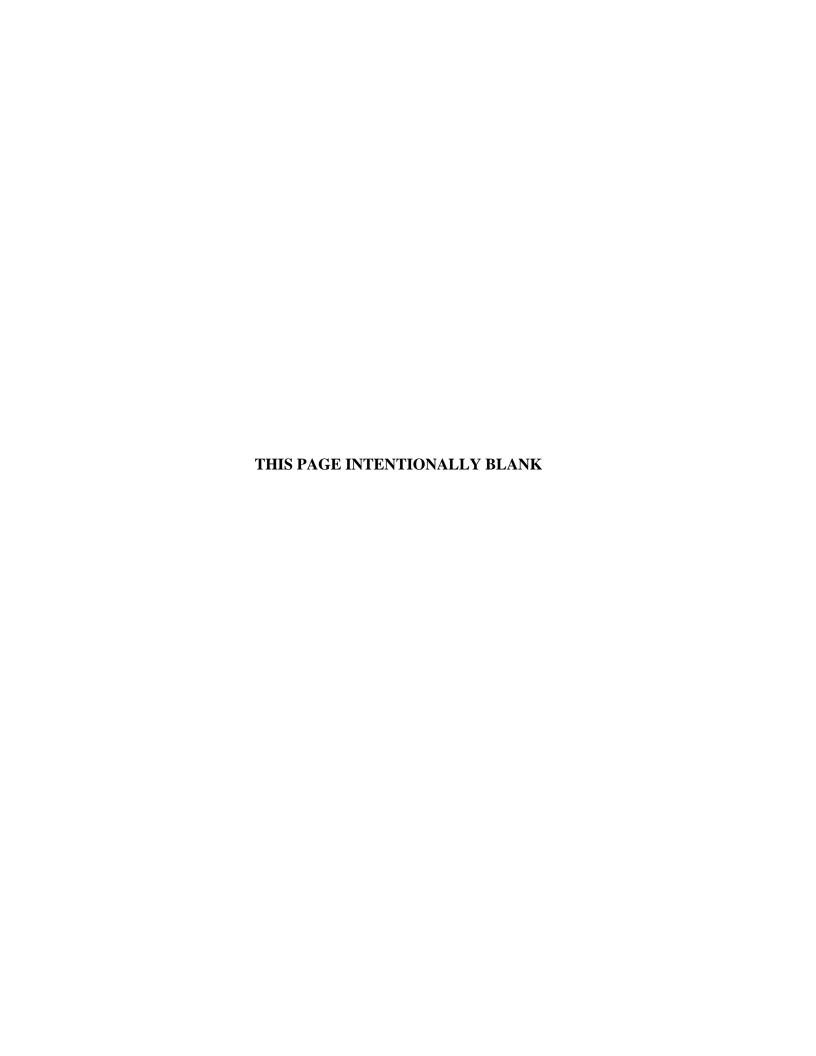
7. At the end of the examination, place your Response Form inside the front cover of this booklet and return the booklet and your Response Form to the supervisor.



### **GEOGRAPHY 12 PROVINCIAL EXAMINATION**

			Value	Suggested Time
1.	This examination consists of <b>two</b> parts:			
	PART A: 40 multiple-choice questions		40	40
	PART B: 11 written-response questions		50	80
		Total	90 marks	120 minutes

- 2. Electronic devices, including dictionaries and pagers, are **not** permitted in the examination room.
- 3. A ruler may be used during this examination.
- 4. The time allotted for this examination is **two hours**.



### PART A: MULTIPLE CHOICE

Value: 40 marks Suggested Time: 40 minutes

**INSTRUCTIONS**: For each question, select the **best** answer and record your choice on the Response

Form provided. Using an HB pencil, completely fill in the circle that has the letter

corresponding to your answer.

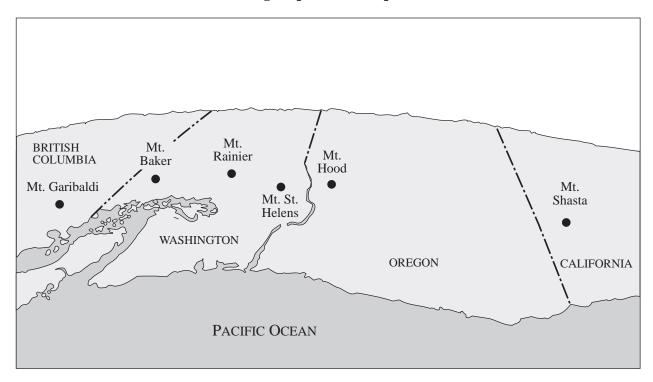
- 1. Ocean plates are primarily composed of
  - A. basalt.
  - B. gneiss.
  - C. granite.
  - D. andesite.

REFERENCE DATA BOOKLET

### Use Photograph 1 to answer questions 2 and 3.

- 2. In the photograph, the feature identified at  $\mathbf{Y}$  is a(n)
  - A. rift.
  - B. sill.
  - C. dike.
  - D. esker.
- 3. In the photograph, features X and Y were formed as a result of
  - A. glaciation.
  - B. vulcanism.
  - C. folding and faulting.
  - D. river and wind deposition.

### Use the following map to answer questions 4 and 5.



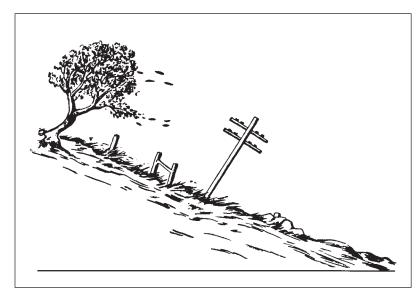
- 4. The mountains labelled on the map above resulted from
  - A. rifting.
  - B. isostasy.
  - C. subduction.
  - D. tear faulting.
- 5. The mountains labelled on the map above are
  - A. shield cones.
  - B. fold mountains.
  - C. block mountains.
  - D. composite cones.

### REFERENCE DATA BOOKLET

### Use Photograph 2 to answer questions 6 and 7.

- 6. The features labelled **Z** in the photograph are
  - A. pillars.
  - B. grykes.
  - C. stalactites.
  - D. stalagmites.
- 7. The **main** economic activity associated with caverns like the one in the photograph is
  - A. waste disposal.
  - B. scientific research.
  - C. mineral extraction.
  - D. tourism or recreation.

### Use the following diagram to answer question 8.



©Diagram Visual Information Ltd.

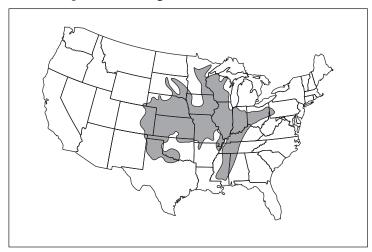
- 8. The process illustrated in the diagram above is

  - A. gullying.B. slumping.C. soil creep.

  - D. lithification.

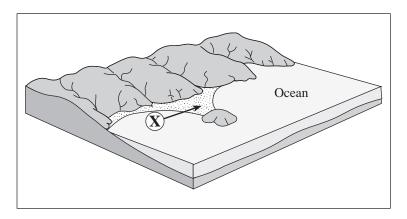
### Use the following map to answer questions 9 and 10.

### **Major Loess Deposit in the United States**



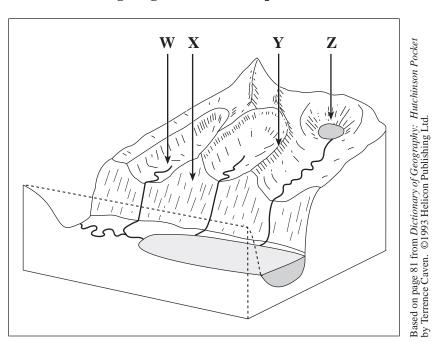
- 9. Which agent is responsible for the transportation and deposition of loess as illustrated on the map above?
  - A. mass wasting
  - B. running water
  - C. prevailing winds
  - D. evaporation of an inland sea
- 10. Loess deposition is economically beneficial because it provides
  - A. fertile soil.
  - B. metallic ores.
  - C. commercial salt flats.
  - D. gravel for construction.

### Use the following diagram to answer question 11.



- 11. Feature  $\mathbf{X}$  in the diagram above is a
  - A. ria.
  - B. stack.
  - C. tombolo.
  - D. headland.
- 12. Evidence of the furthest advance of a glacier would be the presence of
  - A. eskers.
  - B. drumlins.
  - C. crags and tails.
  - D. terminal moraines.

### Use the following diagram to answer questions 13 and 14.



- 13. Which letter in the diagram above indicates a truncated spur?
  - A. W
  - B. X
  - C. Y
  - D. Z
- 14. Which processes are associated with the features identified in the diagram above?
  - A. plucking and abrasion
  - B. ice-wedging and saltation
  - C. quarrying and salinization
  - D. frost shattering and deflation

- 15. The immediate impact of straightening a river meander would be a(n)
  - A. decrease in volume.
  - B. increase in velocity.
  - C. increase in flooding.
  - D. decrease in gradient.
- 16. Which of the following are major greenhouse gases?
  - A. carbon dioxide, methane, oxygen
  - B. chlorofluorocarbons, water vapour, helium
  - C. water vapour, nitrogen oxide, sulfur dioxide
  - D. methane, carbon dioxide, chlorofluorocarbons

### REFERENCE DATA BOOKLET

### Use Photograph 3 to answer question 17.

- 17. The dominant process shaping the landscape in the photograph is
  - A. removal of material by deflation.
  - B. lateral cutting caused by attrition.
  - C. vertical erosion caused by abrasion.
  - D. dissolving of minerals by hydration.

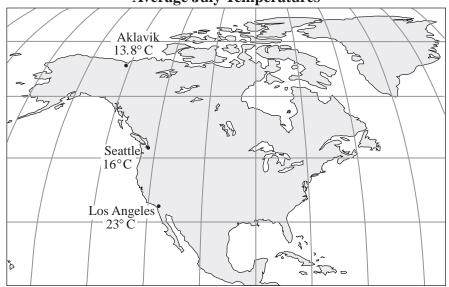
### REFERENCE DATA BOOKLET

### Use Photograph 4 to answer questions 18 and 19.

- 18. The type of cloud illustrated at **X** in the photograph is
  - A. cirrus.
  - B. altostratus.
  - C. stratocumulus.
  - D. cumulonimbus.
- 19. The process by which water vapour formed the clouds in the photograph is
  - A. evaporation.
  - B. precipitation.
  - C. transpiration.
  - D. condensation.

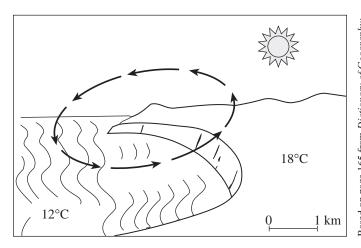
### Use the following map to answer question 20.

**Average July Temperatures** 



- 20. What climatic control is responsible for the temperature differences of the three cities shown on the map above?
  - A. aspect
  - B. altitude
  - C. latitude
  - D. maritimity

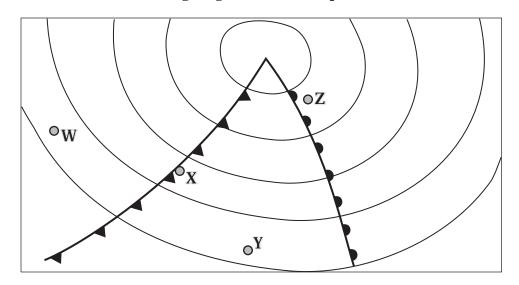
### Use the following diagram to answer question 21.



Based on page 165 from *Dictionary of Geography: Hutchinson Pocket* by Terrence Caven. ©1993 Helicon Publishing Ltd.

- 21. The local wind illustrated in the diagram above is a
  - A. chinook.
  - B. sea breeze.
  - C. land breeze.
  - D. katabatic wind.

### Use the following diagram to answer questions 22 to 24.



- 22. Which location would record the lowest air pressure?
  - A. W
  - B. X
  - C. Y
  - D. Z
- 23. Clear skies and the coldest temperature would occur at which location?
  - A. W
  - B. X
  - C. Y
  - D. Z

### Use the following statement, along with the diagram above, to answer question 24.

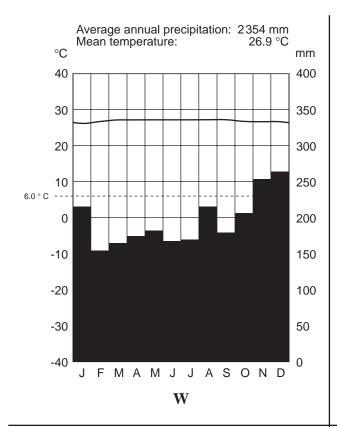
Towering cumulonimbus clouds and heavy showers have resulted in the cancellation of this afternoon's baseball game.

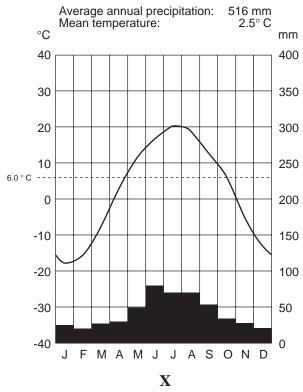
- 24. Which location would be associated with the statement above?
  - A. W
  - B. X
  - C. Y
  - D. Z

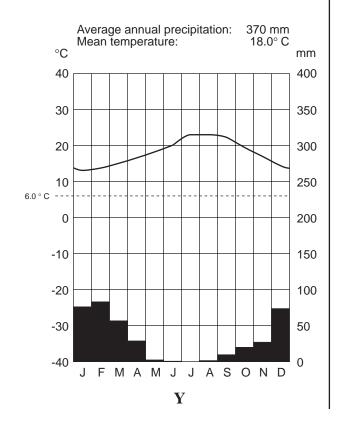
25.	Abiotic	com	onents	of an	ecos	vstem	include

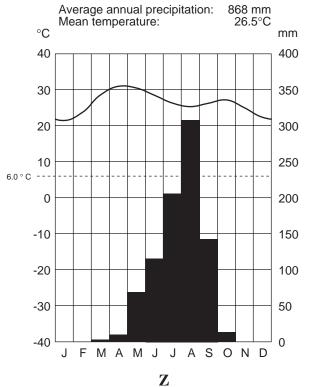
- A. decomposers and fungi.
- B. green plants and bacteria.
- C. herbivores and carnivores.
- D. minerals in soil and water.
- 26. In British Columbia, what type of vegetation would be found at the 2 000 metre elevation?
  - A. mosses and lichens
  - B. ferns and coniferous trees
  - C. lianas and buttress root trees
  - D. steppe and temperate grasslands

### Use the following climate graphs to answer questions 27 to 30.









27.	Which climate graph represents a region of convectional rainfall and black chernozem soils?
	A. W
	B. X
	C. Y
	D. Z

- 28. Identify the biome and human activity associated with climate graph Y.
  - A. steppe and grain cultivation
  - B. mediterranean and fruit farming
  - C. savanna and hardwood extraction
  - D. boreal forest and softwood extraction
- 29. The climate graph which represents a region where smaller trees are overshadowed and protected by giant trees growing in lateritic soil is
  - A. W
  - B. X
  - C. Y
  - D. Z



Use Photograph 5 and the climate graphs to answer question 30.

- 30. Which climate graph is **most closely** associated with the photograph?
  - A. W
  - B. X
  - C. Y
  - D. Z

	people to become concerned.			
	<ul><li>A. agrarian</li><li>B. industrial</li><li>C. post-industrial</li><li>D. hunting and gathering</li></ul>			
32.	Barchans result from the interaction between the			
	<ul><li>A. lithosphere and the biosphere.</li><li>B. biosphere and the hydrosphere.</li><li>C. atmosphere and the lithosphere.</li></ul>			
	D. atmosphere and the hydrosphere.			
33.	Which energy source is the main method of power generation in <b>North America</b> ?			
	A. solar B. hydro			
	C. nuclear D. fossil fuels			
34.	Sustainability means			
	<ul><li>A. maximizing resource utilization and profit.</li><li>B. resisting pressure to develop a potential resource.</li></ul>			
	<ul><li>C. extracting a resource which is commercially viable.</li><li>D. meeting today's needs while providing for the future.</li></ul>			
35.	In which feature would materials for highway construction be found?			
33.	A. a tarn			
	<ul><li>B. an arête</li><li>C. a cirque</li></ul>			
	D. an esker			
	<ul><li>B. an arête</li><li>C. a cirque</li></ul>			

31. Identify the stage of human culture in which threats to the global environment have caused

A. 120 m.B. 165 m.C. 185 m.D. 200 m.

# Use Photograph 6, illustrating the mouth of the Margaree River, and the topographic map of the Margaree Valley to answer questions 36 to 40.

36. The elevation of the hilltop at grid reference 449397 is approximately

37. Timmins Brook, in grid square 4933, is flowing in which direction?

	A. B. C. D.	northeast southeast northwest southwest
38.	The	soil type found at <b>15B</b> on the photograph is
	A. B. C. D.	loess. laterite. alluvium. chernozem.
39.	The	drainage pattern of Mill Valley Brook, at grid square 4440 is
	B. C.	radial. trellis. dendritic. intermittent.
40.	The	best description of the physical feature located at grid reference 470330 is
	A. B. C.	a cut-bank caused by river erosion. a waterfall due to faulting in the river bed. a slip-off slope formed by river deposition. the confluence of the Margaree and its main tributary.

### PART B: WRITTEN RESPONSE

Value: 50 marks Suggested Time: 80 minutes Answer each question in the space provided. You may not need all of the space provided. Answers should be written in **ink**. **Comprehensive answers are INSTRUCTIONS**: required for full marks. Select either coastal feature X or coastal feature Y from Photograph 6 to answer question 1. Indicate your selection with a  $\checkmark$ . REFERENCE **DATA BOOKLET** Coastal Erosional Coastal Depositional Feature X Feature Y 1. a) Name the erosional or depositional feature selected. \_\_\_\_\_ (1 mark) b) With the aid of a clearly labelled diagram, explain how the coastal feature you have selected was formed. (3 marks) **Place Diagram Here** Explanation: \_\_\_\_\_

# Use Photograph 6, illustrating the mouth of the Margaree River, and the topographic map of the Margaree Valley to answer question 2.

The Margaree region of Cape Breton Island was inhabited early in Canada's history. The population has not greatly increased, but each year more and more travellers come to marvel at the spectacular scenery in the Margaree Valley.
With reference to the air photograph and topographic map, <b>discuss</b> the influence that physical geography and human activity have had on each other in this region. You must address both physical and human influences to receive full marks. Answer in <b>paragraph</b> form. <b>(6 marks)</b>

REFERENCE DATA BOOKLET

### Use Photograph 7 to answer question 3.

3.	a)	Ident	ify the economic activity indicated in the photograph.	(1 mark)
	b)		ain three effects this type of activity may have on the watershed.	(3 marks)
		ii)		
		iii)		
	c)	Sugge	est two reasons why this activity continues despite the impact upon the	e environment. (2 marks)
		i)		
		ii)		

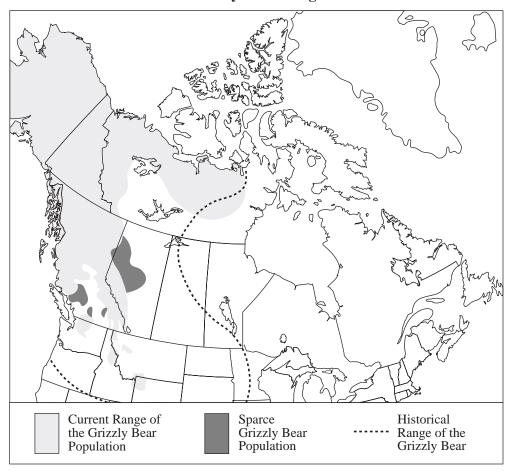
### Use Photograph 8 to answer question 4.

4.	<b>Identify</b> the biome represented in the photograph. <b>Describe two</b> ways that this vegetation hadapted to the climate. (3 mar	
	Biome :	
	Description of adaptation 1:	
	Description of adaptation 2:	

Select one of the following resources to answer question 5.  Indicate your selection with a   .				
	Fish Fresh Water			
5.	Mismanagement of resources is a global problem. In a paragraph, <b>outline</b> the problems associated with the use of the resource you have selected and <b>propose</b> ways to better manage the resource.  (6 marks)			

### Use the following map to answer question 6.

### **Grizzly Bear Range**



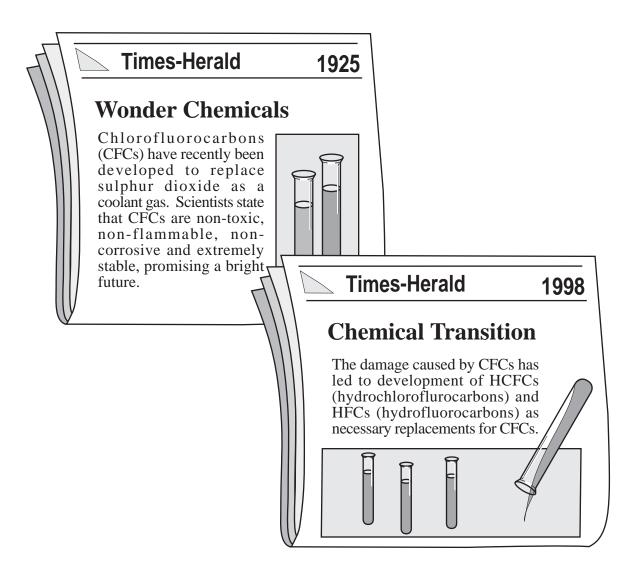
Some experts believe that the change shown on the map can be reversed. with this statement and <b>support</b> your answer.	(3 marks

/.	/. <b>Suggest three</b> negative effects, other than death and injury, that an earthquake may urban centre.					(3 marks)	
	i)						
	ii)						
	iii)						

### Use the following statement to answer question 8.

In Canada, the expression "urban ore" has been used to describe the solid waste deposited in a landfill site.

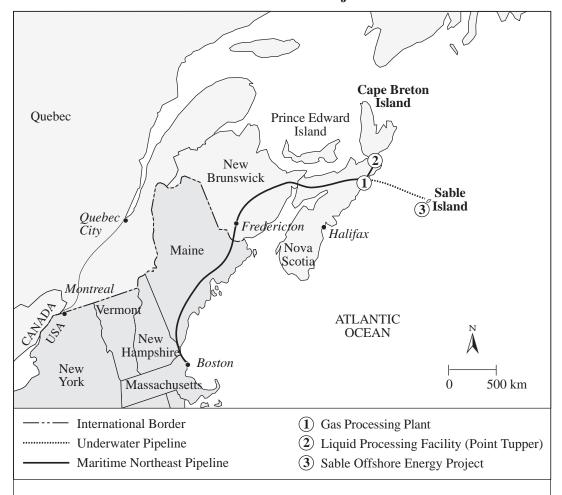
8.	a)	Expl	ain three ways people could make better economic use of solid wastes.	(3 marks)
		i)		
		ii)		
		iii)		
	b)	Expl	ain why solid wastes have traditionally been viewed as having little or no va	alue. (2 marks)
		-		



9.	a)	What conclusion can be drawn by comparing the two newspaper articles? (1 mark)
	b)	CFC use has resulted in an increase in the amount of ultra violet light reaching Earth.  State two effects of this increased exposure. (2 marks)
		i)
	c)	Explain what precautions should be taken before changes in technology are introduced as solutions to environmental problems. (2 marks)

### Use the following map and information to answer question 10.

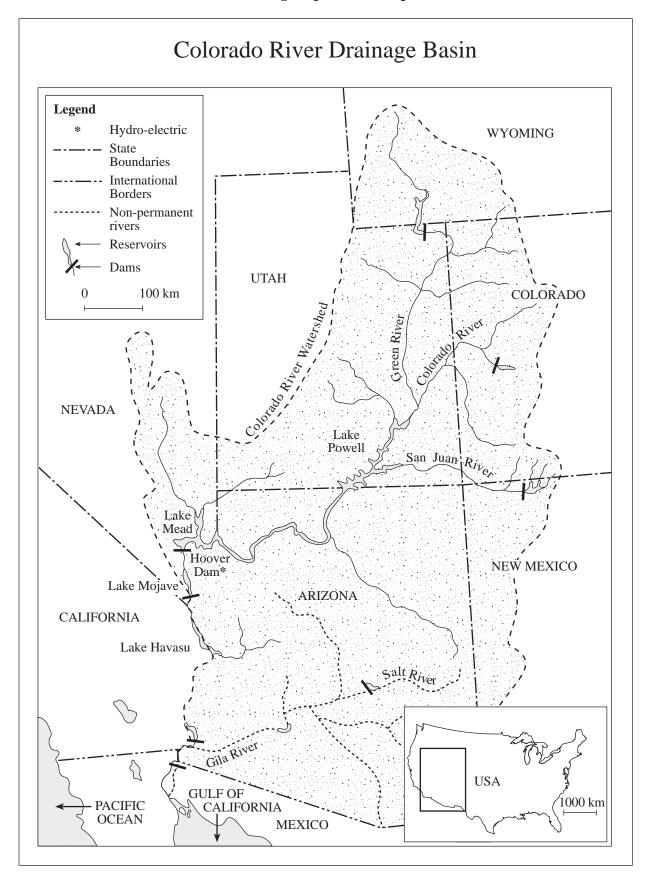
### Sable Island Gas Project



The \$3 billion Sable Island gas project will be one of the largest ever in the Maritimes. Construction will take two years, with the first gas from the fields being delivered to the northeastern seaboard of the United States in 1999.

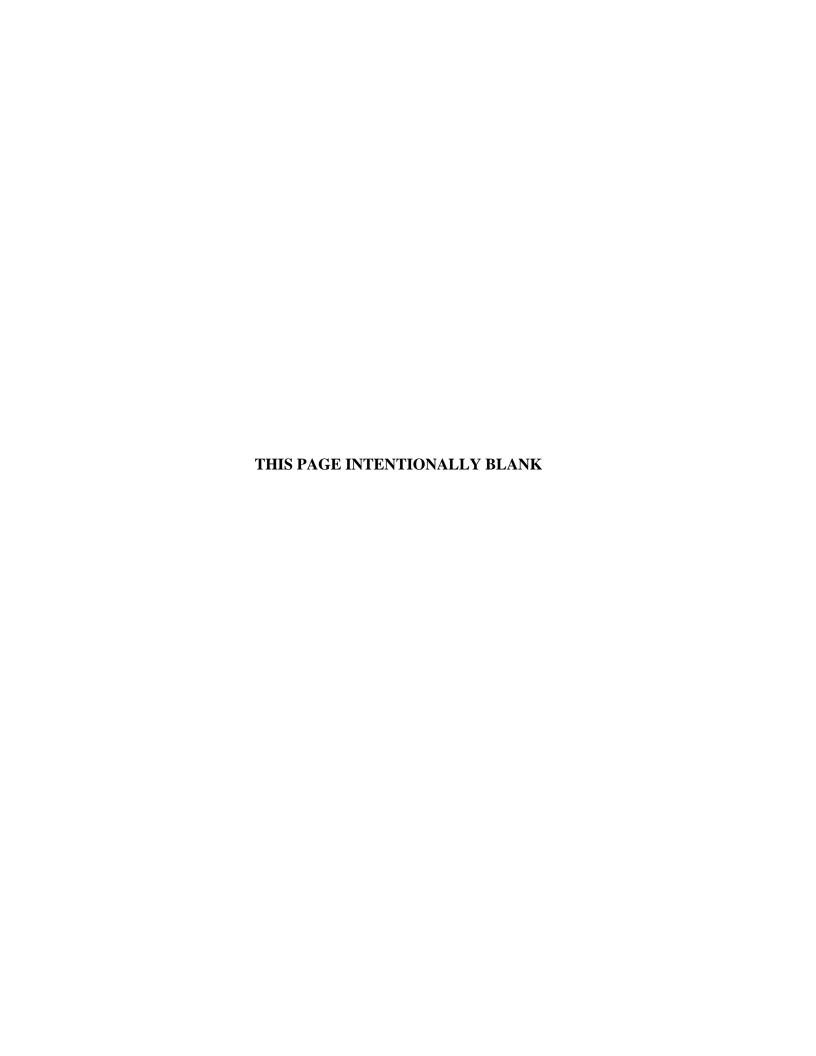
Gas pools around Sable Island are thought to contain 142 billion cubic metres of gas, more than twice Canada's consumption in 1993.

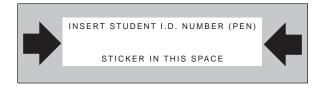
sland gas project. Answer in <b>paragraph</b> form.	(6 m



11.	-	proposal has been made by an environmental group to remove dams on the Colorado River. <b>resent three</b> different arguments that could be used to <b>support maintaining</b> dams on the		
	Colo	orado River. (3 marks)		
	i)			
	ii)			
	iii)			

END OF EXAMINATION





## **GEOGRAPHY 12**

January 1999

Course Code = GEO

### FOR OFFICE USE ONLY

## **GEOGRAPHY 12**

January 1999

Course Code = GEO

Score fo	r
Question	1:

1. \_\_\_\_\_

Score for Question 7:

7. \_\_\_\_

Score for Question 2:

2. \_\_\_\_\_

Score for Question 8:

8. \_\_\_\_\_

Score for Question 3:

3. \_\_\_\_

Score for Question 9:

9. \_\_\_\_

Score for Question 4:

4. \_\_\_\_

Score for Question 10:

10. \_\_\_\_\_

Score for Question 5:

5. \_\_\_\_\_

Score for Question 11:

11. \_\_\_\_(3)

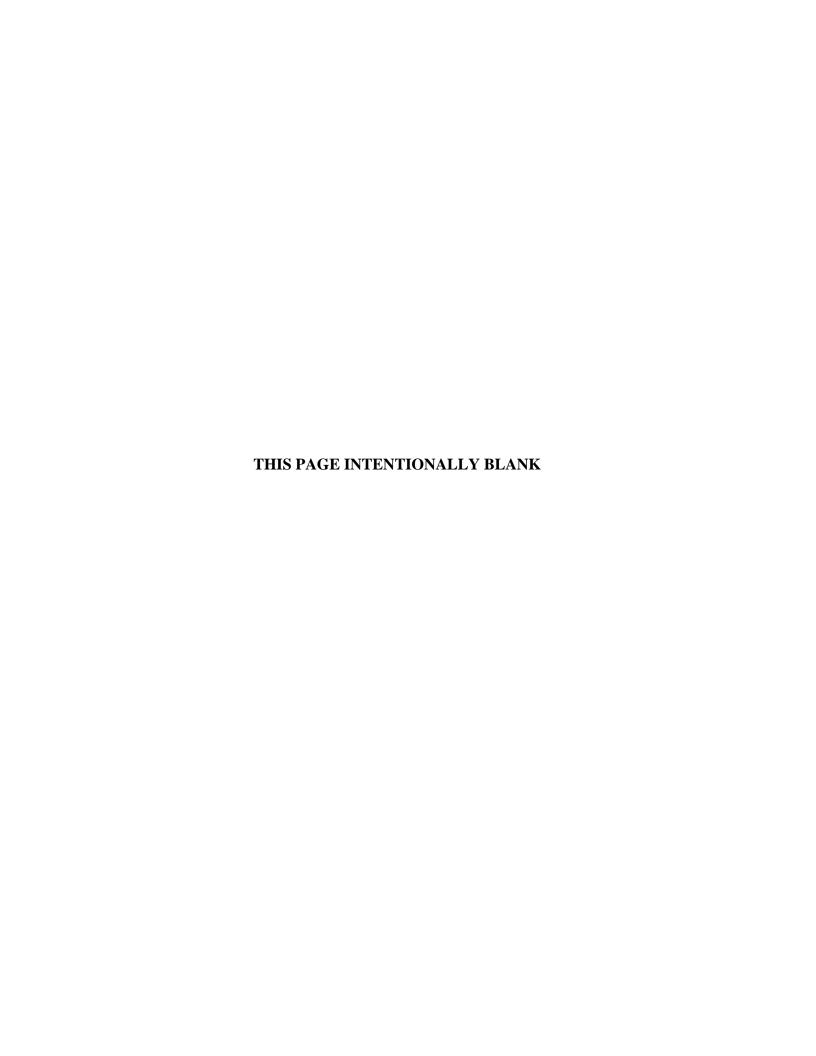
Score for Question 6:

6. \_\_\_\_

# GEOGRAPHY 12

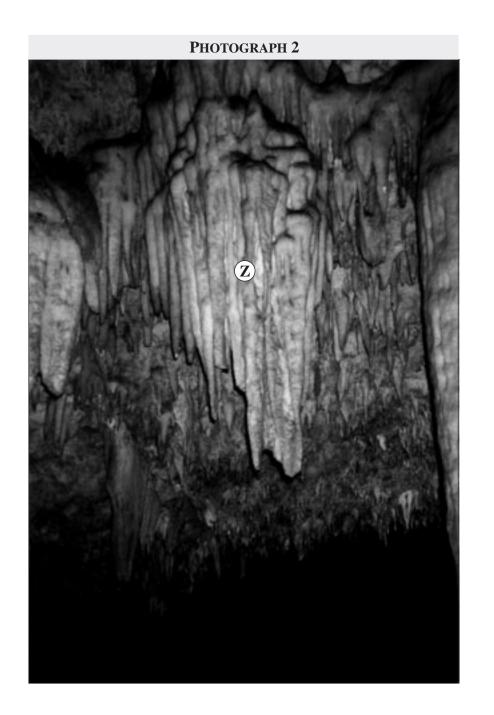


JANUARY 1999 DATA BOOKLET



# PHOTOGRAPH 1

Air Dh

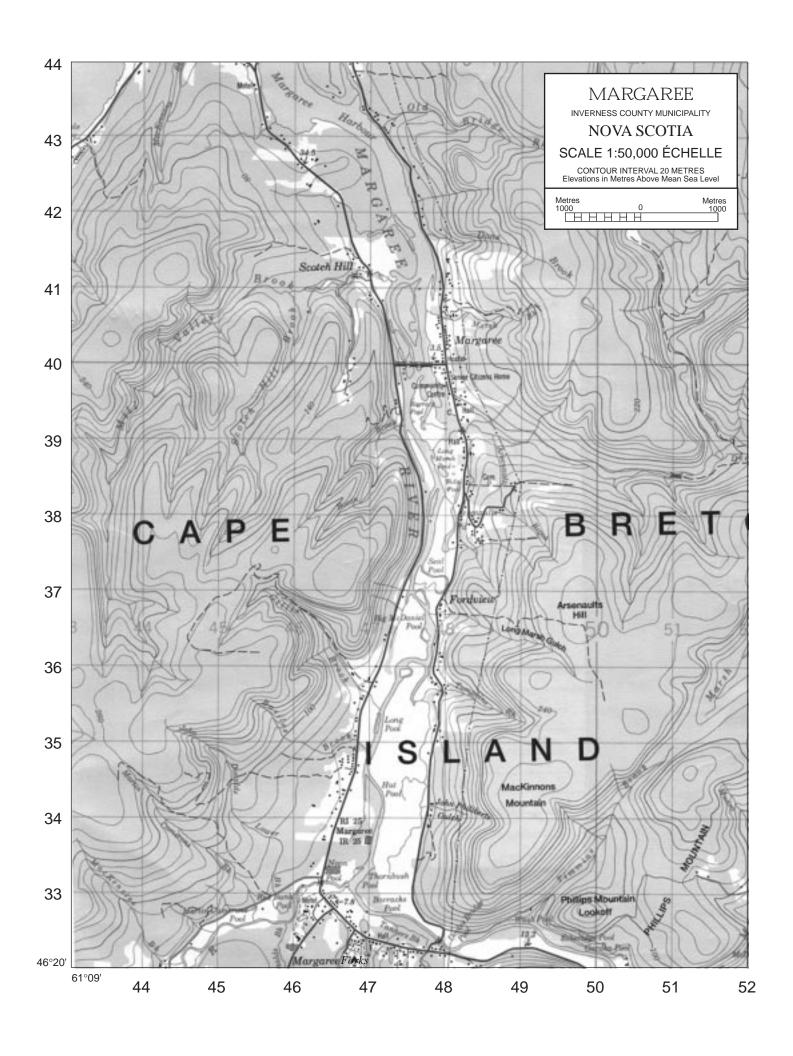


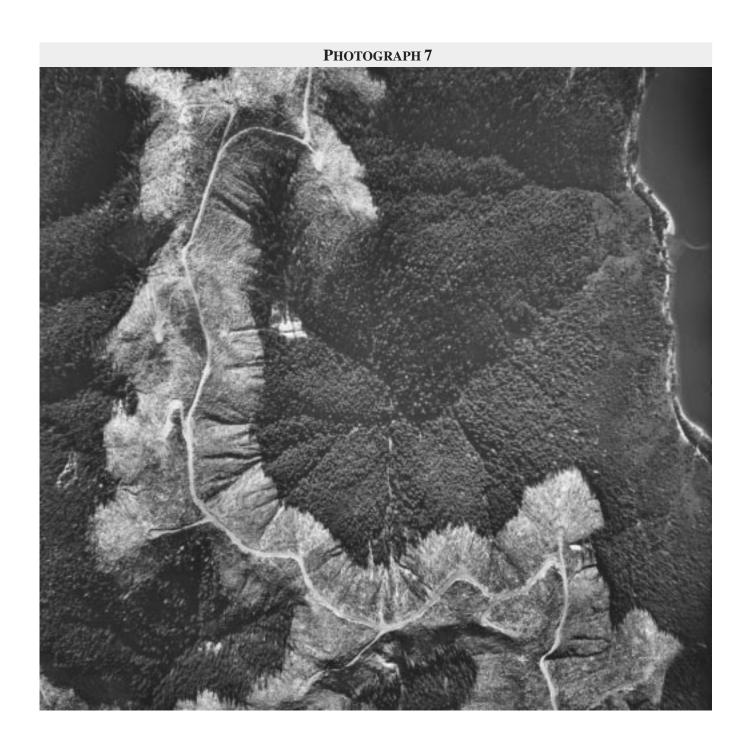
PHOTOGRAPH 3		
Removed Due to Copyright Restrictions		











# PHOTOGRAPH 8

### **ACKNOWLEDGEMENTS**

Photograph 6 is based on information taken from the collection of the Nova Scotia Housing and Municipal Affairs Air Photo Library – Photograph A25237-41 (Margaree), ©1975 Her Majesty the Queen in Right of Canada, reproduced with permission of Nova Scotia Housing and Municipal Affairs.

The topographic map is based on information taken from the National Topographic System map sheet number: 11K/6 Edition 4 (Margaree), ©1997 Her Majesty the Queen in Right of Canada, reproduced with permission of Natural Resources Canada.

Photograph 7 is BC Government air photograph BCC 325–2. Reproduced courtesy of Geographic Data BC – Ministry of Environment, Lands and Parks.