



**Victorian Certificate of Education  
2005**

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

**STUDENT NUMBER**

|         |                      |                      |                      |                      |                      |                      |                      |                      |                      |        |                      |
|---------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--------|----------------------|
| Figures | <input type="text"/> | Letter | <input type="text"/> |
| Words   | <input type="text"/> |        |                      |

**OUTDOOR AND ENVIRONMENTAL STUDIES**  
**Written examination**

**Monday 14 November 2005**

**Reading time: 11.45 am to 12.00 noon (15 minutes)**

**Writing time: 12.00 noon to 2.00 pm (2 hours)**

**QUESTION AND ANSWER BOOK**

**Structure of book**

| <i>Number of questions</i> | <i>Number of questions to be answered</i> | <i>Number of marks</i> |
|----------------------------|---|------------------------|
| 5                          | 5   | 100                    |

- Students are permitted to bring into the examination room: pens, pencils, highlighters, erasers, sharpeners and rulers.
- Students are NOT permitted to bring into the examination room: blank sheets of paper and/or white out liquid/tape.
- No calculator is allowed in this examination.

**Materials supplied**

- Question and answer book of 15 pages.

**Instructions**

- Write your **student number** in the space provided above on this page.
- All written responses must be in English.

**Students are NOT permitted to bring mobile phones and/or any other unauthorised electronic devices into the examination room.**

### Instructions

Answer **all** questions in the spaces provided.

### Question 1

The postcard reproduced below relates to Question 1.



## 13 marine national parks in Victoria? I want to see that!

*And you will if you support the Environment Conservation Council's recommendations for marine national parks and sanctuaries in Victoria.*

Victoria's marine environment is not just a home for fish, it also includes giant kelp forests, seagrass meadows, reefs, sandy plains and sponge gardens (see photo).

However, less than 0.05% of Victoria's coastal waters is currently protected against mining, fishing, dredging and aquaculture.

This must change if we are to have a healthy marine environment and sustainable fisheries. You can help create the change by sending this message to Premier Bracks.

Dear Premier Bracks,

I support the 13 marine national park and 11 sanctuary proposals for Victoria's unique and beautiful coastal waters. Please resist any attempts to reduce their size and number. The marine national parks will protect marine life and habitats now and forever.

Yours sincerely: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

To find out more about Marine National Parks, contact the  
Victorian National Parks Association on 03 9650 8296,  
email [chris@vnpa.org.au](mailto:chris@vnpa.org.au) or visit our website at [www.vnpa.org.au](http://www.vnpa.org.au)

please  
affix  
stamp



The Hon. Steve Bracks  
Premier  
c/o The Victorian National  
Parks Association  
10 Parliament Place  
East Melbourne 3002

Design: Amanda Knealy Photo: Paul Beaman. Sponge gardens at Port Phillip Heads.

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**Question 2**

There are 4400 species of fish in Australian waters. These include 200 freshwater species and 4200 marine species. The marine fishes include species found close to shore, in open ocean, in the deep sea and in estuaries. About 80% of the southern species and about 10% of the northern species are found only in Australian waters.

However, a number of our fish species are overfished and are now listed as endangered. This threatens the sustainability of the fishing industry. The Australian Marine Conservation Society (AMCS) has a campaign to help maintain the sustainability of the industry. The card shown below is part of that campaign.



**STEP 1 Overfished? Say 'NO thanks!'**

| Overfished                    | Marketed As:                       |
|-------------------------------|------------------------------------|
| Brown tiger prawn             | Tiger prawn (several species)      |
| Tropical rock lobster         | Coral crayfish, painted cray       |
| Sandfish (sea cucumber)       | a species of Beche-de-mer          |
| Black teat fish, Surf redfish | a species of Beche-de-mer          |
| Orange roughy                 | Deep sea perch, sea perch          |
| Redfish                       | Nannygai, red snapper              |
| Blue warhou                   | Trevally, sea bream                |
| Eastern gemfish               | Hake, king cotta, silver kingfish  |
| Southern scallop              | Commercial, king or Tassie scallop |
| Southern bluefin tuna         | Tuna                               |
| School shark                  | Fake, snapper shark, tope          |
| Silver trevally               | Silver bream, white trevally       |
| Bigeye tuna (Indian Ocean)    | Tuna                               |

Source: Fisheries Status Reports 2002-03 www.ffa.gov.au

**STEP 2 Ask Your Fish Merchant**

Ask these questions at the seafood counter.  
If the answer is 'Yes' then say **'No Thanks'**

- **Is the species long-lived (>20yrs) or slow growing?**
- **Is it a deep sea species?** (found below 500m)
- **Is it a shark or ray?** Mostly sold as 'flake' or 'fish' in 'fish and chips'. Sharks and rays are in decline worldwide and killed in their thousands by numerous Australian fisheries. Several species are already listed as being 'threatened with extinction'.

Ask questions and try to avoid seafood species that are particularly susceptible to overfishing. Help prompt retailers to tell us more about our seafood.

**STEP 3 Avoid Imported Seafood**

**Over 60 per cent of our seafood is now imported** and often from industries with very damaging environmental practices. We are also told nothing at the seafood counter about how imported species are caught or farmed or where exactly they come from. We also have little or no say in their management.

Choose Australian seafood first, avoid overfished and vulnerable species and help us protect Australia's precious marine environments. (Only choose imports if they are from environmentally accredited fisheries.)

To find out which species are a better choice view AMCS's Sustainable Fish Finder at [www.amcs.org.au](http://www.amcs.org.au) or call 1800 066 299



a. What is biodiversity?

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3 marks

Question 2 – continued  
www.theallpapers.com **TURN OVER**

- b. The Australian marine fish fauna is considered to be quite diverse. What evidence is there for this claim?

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2 marks

- c. What other information would you need to describe the biodiversity of the Australian fish fauna?

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2 marks

- d. **Explain** how the use of the card (illustrated on page 5) may contribute to the future of human societies and biodiversity.

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3 marks

- e. **Explain two** possible impacts on future human societies of a loss of biodiversity in the Australian fish fauna.

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4 marks

- f. Australian Orange Roughy populations are now thought to be less than 30% of their original levels. These fish live up to 150 years. Apart from saying ‘no thanks’ at your fish merchant or supermarket, what other strategies and actions could be implemented to help prevent further decline of Orange Roughy and other endangered populations?

**Provide one** example for each category below.

|                 | <b>Individuals</b> | <b>Fishing industry</b> | <b>Government</b> |
|-----------------|--------------------|-------------------------|-------------------|
| <b>Strategy</b> |                    |                         |                   |
| <b>Action</b>   |                    |                         |                   |

6 marks

Total 20 marks

**TURN OVER**



- d. If you were in charge of a school group, **identify three** actions you could take to ensure the safety of your group during a water-based outdoor experience.

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3 marks

- e. **Explain three** actions your school group could take to interact with minimal impact on the natural environment during a water-based outdoor experience.

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6 marks

Total 18 marks











