

# COMMONWEALTH OF AUSTRALIA

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Family Name	
Given Names	
Student Number	
Teaching Period	Semester 2, 2016

<b>FINAL EXAMINATION</b>	<b>DURATION</b>
<b>ENV205 – Environmental Issues</b>	Reading Time: <b>10</b> minutes
	Writing Time: <b>120</b> minutes

**INSTRUCTIONS TO CANDIDATES**

Answers should be written in the booklets provided.

Please ensure that your Name and Student Number are written clearly in the space provided at the top of the booklet.

Read ALL questions carefully.

**EXAM CONDITIONS**

**You may begin writing from the commencement of the examination session.** The reading time indicated above is provided as a guide only.

This is a CLOSED BOOK examination

No calculators are permitted

No handwritten notes are permitted

No dictionaries are permitted

<b>ADDITIONAL AUTHORISED MATERIALS</b>	<b>EXAMINATION MATERIALS TO BE SUPPLIED</b>
No additional printed material is permitted	2 x 16 Page Book

**THIS EXAMINATION IS PRINTED  
DOUBLE-SIDED.**

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## Section A

### Short Answer Questions Total No of Marks for this section: 60

This section should be answered in the Answer Booklet provided.  
Please answer all 6 questions.

Marks for each question are indicated, note that all questions are of equal value.  
Suggested Time allocation for Section A: 60 mins

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#### Question 1

Using diagrams, summarise the concepts of: (a) sustainability; and (b) ecosystem services.  
(Marks: 10)

#### Question 2

As an employee of an environmental agency, you have been asked to evaluate the economic viability of rehabilitation of a wetland affected by salinisation.

Briefly, in a couple of sentences each, provide a possible strategy of undertaking a valuation of ecosystem goods and services by market and non-market estimates.  
(Marks: 10)

#### Question 3

- (a) Describe the predicted trajectory of the global population for the remainder of this century. What are the two key drivers of population size?
- (b) What are the broad differences in population growth rates and age structure between more-developed and less-developed nations?
- (c) Explain how future economic development will affect the growth rates and age structure of human populations in less-developed nations.

(Marks: 10)

#### Question 4

Describe examples of the degradation of natural capital associated with five (5) harmful environmental effects of the production of food, fibre and forest goods.

(Marks: 10)

### Question 5

The total economic value associated with managing ecosystems more sustainably is often higher than the value associated with conversion to something else. However, conversion may still occur because private economic benefits are often greater for the converted system.

- (a) Provide two (2) examples of where this has occurred.
- (b) For the examples provided in (a), explain the dilemma of conversion versus maintenance and the opposing value (ecological/economic) of each choice.

(Marks: 10)

### Question 6

List five (5) ways that human activity has altered ecological connectivity in aquatic ecosystems and five (5) of the resulting consequences.

(Marks: 10)

**Section B**  
**Short Essay Questions**  
**Total Number of Marks for this section: 60**

This section should be answered in the Answer Booklet provided.  
Please Note that you should **choose TWO (2) essay questions** to answer.

Marks for each question are indicated. Suggested Time allocation for Section B: 60 mins

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**Question 7**

To adapt or mitigate? That is the question that faces governments and industries across the globe, as the impacts of climate change become ever clearer. Discuss.

(Marks: 30)

**Question 8**

The UN's top sustainable development goal is to end poverty in all its forms everywhere by 2030. Why should this be a top global priority and what will the impacts of the elimination of poverty be? Discuss with reference to population, resource consumption and environmental degradation.

(Marks: 30)

**Question 9**

Is a world population of 11 billion sustainable? Discuss what the future could look like in 2100. Can we transition to more environmentally sustainable economies? What technologies and policies would need to be in place for the earth to support us? What could the outlook be if we don't get this right?

(Marks: 30)

**Question 10**

The "super trawler" – an environmental disaster or an efficient means of harvesting fish sustainably? Discuss the reasons that the super trawler issue is so contentious and evaluate the evidence for both sides of the argument.

(Marks: 30)