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THE UNIVERSITY *of York*

Degree Examination 2005

ENVIRONMENT DEPARTMENT

BSc in Environment, Economics and Ecology, Part 1a  
BSc in Environmental Science, Part 1a

ENVIRONMENT AND ECONOMICS: A GLOBAL PERSPECTIVE

Time allowed: one and a half hours

Answer **ONE** question from SECTION A and **ONE** question from SECTION B



*Pay adequate attention to spelling, punctuation and grammar, so that your answers can be readily understood*

## SECTION A

### Question 1 (25 marks)

1a. Give a brief chronology of the earth's history with respect to the appearance and evolution of life on earth.

(8 marks)

1b. Define biogeochemical cycling and describe the key components involved using the carbon cycle as an example.

(5 marks)

1c. Explain how human activity is altering the carbon cycle.

(3 marks)

1d. Sketch a figure to show how the atmospheric component of the carbon cycle has altered over time as a result of human activity.

(3 marks)

1e. The Kyoto protocol aims to gain international agreement to reduce global greenhouse gas emissions.

i) *Explain the rules of "entry into force" of the Protocol.*

(3 marks)

ii) *How close is the international community to having this agreement entered into force?*

(3 marks)

### Question 2 (25 marks)

2a. Explain the concept of "urban metabolism".

(2 marks)

2b. With reference to the concept of "urban metabolism" discuss the role of transport in our urban environments.

(5 marks)

2c. How has urbanisation affected our agricultural production and transport?

(1 mark)

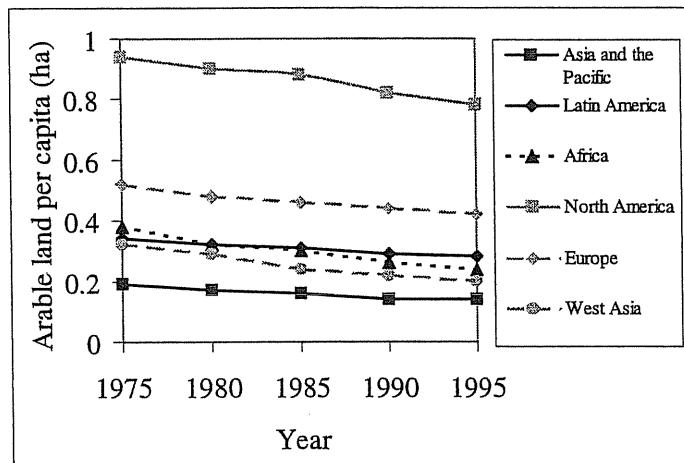
2d. To date, how has food production managed to keep pace with population growth?

(7 marks)

2e. Figure 1 describes changes in arable land per capita over time for different regions of the world. Is this a cause for concern in relation to food security issues for the global population?

(10 marks)

Figure 1. Regional decrease in arable land per capita (UNEP, 2000).



## SECTION B

### Question 3 (25 marks)

Critically discuss the following statement: “Economic growth inevitably leads to environmental degradation”.

### Question 4 (25 marks)

Critically discuss the following statement: “Population growth is the primary cause of environmental degradation”.

