

UNIVERSITY OF BOLTON
SCHOOL OF HEALTH & SOCIAL SCIENCES
BIOLOGY & ENVIRONMENTAL STUDIES
SEMESTER TWO EXAMINATIONS 2010/2011
APPROACHES TO SUSTAINABILITY
MODULE NO: EVS2512

Date: Wednesday 1st June 2011

Time: 10.00am – 1.00pm

INSTRUCTIONS TO CANDIDATES:

There are eight questions on this paper.

Answer ALL the questions in Sections A and B.

Answer One question in Section C.

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SECTION A - Answer ALL questions in this section

1. The Chilean economist, Manfred Max-Neef, outlined a 'taxonomy of human needs'. Give an overview of this model.

10 marks

2.
 - a. Describe the constituent parts of Geographic Information Systems.

(2 marks)

 - b. Using examples, comment on the ways in which GIS technology can be used for resource conservation and land-use planning.

(8 marks)

10 marks

3.
 - a. How has the use of Gross National Product (GNP), as a proxy for measuring development, been criticised?

(2 marks)

 - b. Giving reasons, suggest which elements an 'indicator of development' should have.

(8 marks)

10 Marks

4. Describe the origins and key ideas behind the ecological design system known as 'permaculture' .

10 Marks

5. Describe the concept of ecological footprinting and give examples as to how it has been applied.

10 Marks

Please turn the page

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SECTION B - Answer this question

6. Reflection on the class project.

The following questions may help you to formulate your response:

- What did you do?
- How did you feel?
- What have you learned?
- What worked and what didn't work for you?
- If you were involved in a similar exercise in the future, would you do anything differently?
- What impact do you think the project will have?

25 marks

SECTION C - Answer ONE question from this section

7. Outline the ways in which the public can take part in decision making. Comment upon key ideas in the literature drawing on the work of Arnstein and Burns, amongst others.

25 marks

8. a. Describe the key differences between ecological economics and classical economics?

(10 marks)

b. Suggest reforms that could be made to economics in order to ensure that the planets' resources are preserved for future generations.

(15 marks)

25 marks

END OF QUESTIONS