UNIVERSITY OF KWAZULU- NATAL DURBAN CENTRE: WESTVILLE CAMPUS EXAMINATION:NOVEMBER 2011

SCHOOL : ENVIRONMENTAL SCIENCES

LEVEL : III

MODULE : ENVIRONMENTAL MANAGEMENT

CODE : ENVS322 W2H2

DURATION: 3 HOURS TOTAL MARKS: 300

INTERNAL EXAMINERS: Dr J. Finch; Mrs E. Joubert

EXTERNAL EXAMINER: Prof S. Grab

INSTRUCTIONS: Answer THREE questions: Section A (Question 1) is compulsory, then answer ONE question from Section B and ONE question from Section C. Answer each section in a separate answer book.

SECTION A

1 Critically assess the role of sound environmental governance in controlling and managing the environment and natural resources.

(100)

SECTION B

2 Environmental auditing is a valuable tool in the promotion of sustainable development practices. Using examples where appropriate, illustrate your understanding of the various types of environmental auditing.

(100)

You have been tasked with conducting a Social Impact Assessment (SIA) for a new landfill site in the Inanda Valley. Discuss the principles that would guide your assessment, and the methodology that you would employ to ensure participation of all relevant stakeholders.

(100)

SECTION C

- 4 Comprehensively discuss the LCA process. Your answer must include the following aspects:
 - Description of the different phases of LCA;
 - Design of a generic model for the LCA process;
 - Criticism of the LCA process.

(100)

All of humankind depends on ecosystem goods and services, either directly or indirectly. Without ecosystem goods and services, life as we know it would cease to exist. Critically evaluate the above statement with specific reference to the South African context. You must fully substantiate your answer.

(100)

UNIVERSITY OF KWAZULU- NATAL DURBAN CENTRE: WESTVILLE CAMPUS SUPPLEMENTARY: DECEMBER 2011

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SECTION A (100 MARKS)

COMPULSORY QUESTION

1 "Attitudes towards the environment and humankind's ability or willingness to modify it are not fixed. At any point in time different groups or individuals may vary their outlook on environment and development" (Barrow, 1995, 1).

With reference to the above, discuss key turning points in the history of environmental thinking, and explain how these shifts have shaped current global approaches to environmental management.

SECTION B (100 MARKS)

ANSWER ONE QUESTION

- Ecological Risk Assessment (ERA) is a methodological examination of potential ecological risks so that they may be better avoided, reduced or otherwise managed. Assess the merits of this environmental assessment tool.
- 3 Explain Environmental Management Frameworks (EMF's) and discuss how they can be applied.

SECTION C (100 MARKS)

ANSWER ONE QUESTION

- Ecological footprinting (EF) is an emerging tool that looks at the impression that we leave behind on our planet. Outline the EF process and comprehensively explain how EF calculations are performed. Discuss limitations and strengths to the methodology.
- 5 SoER is a relatively new environmental management tool in SA. Explain the role of the tool in environmental decision-making. Critically discuss some of the challenges to developing and using this tool effectively in South Africa.