

UNIVERSITY OF FORT HARE
DEGREE EXAMINATIONS
NOVEMBER
2025

Time: 3 Hours
Subject: ECO514
Marks: 100

Internal Examiners

Dr. D Hompashe

External Examiners

Prof. L Jeke

INSTRUCTIONS



Answer compulsory Question 1 in Section A and ANY THREE questions of your choice in Section B, in any order.

All questions carry equal marks.

Credit will be given for the use of relevant graphs and contemporary examples.

Please answer the questions concisely and in English, writing as clearly as possible.

SECTION A (COMPULSORY)

QUESTION 1 (ONE)

Read the extract below and answer the questions that follow:

"According to Statistics South Africa, the country's population has been growing steadily, reaching over 60 million in 2024. This growth places increasing pressure on natural resources, infrastructure, and public services. In response, the government has implemented various family planning and reproductive health programs aimed at increasing the use of contraception, particularly in rural and underserved areas. Despite these efforts, challenges such as cultural resistance, limited access to healthcare, and educational disparities persist."

1.1 Explain how population growth can impact environmental sustainability in South Africa. (5)

1.2 Discuss the effectiveness of contraception programs in reducing population growth in South Africa. (6)

1.3 Identify and explain two key challenges that hinder the success of family planning initiatives in South Africa. (6)

1.4 Suggest two policy interventions that could enhance the effectiveness of these programs. Justify your suggestions. (8)



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SECTION B (ANSWER ANY 3 QUESTIONS, IN ANY ORDER)

QUESTION 2 (TWO)

2.1 Distinguish between use values and non-use values in environmental valuation. Provide one example of each from a South African national park. (10)

2.2 Discuss two major challenges in applying environmental valuation techniques in developing countries like South Africa. How can these challenges be addressed? (15)

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QUESTION 3 (THREE)

3.1 Explain the concept of Hotelling's Rule and discuss its limitations in the context of South Africa's mining industry. Provide relevant examples to aid your discussion. (12)

3.2 Evaluate the challenges and opportunities in applying optimal extraction theory to South Africa's gold mining sector, considering factors such as declining ore grades, increasing extraction costs, and environmental concerns. (13)

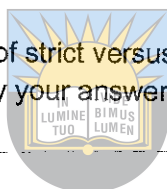
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QUESTION 4 (FOUR)

4.1 Discuss the merits of imposing a tax or subsidy on the monopolistic supply of a non-renewable resource in South Africa. How can this improve social net benefits? (10)

4.2 Explain the concepts of strict liability and negligent liability in environmental regulation. How do these legal frameworks influence the level of precaution taken by firms? (10)

4.3 Compare the distributional impacts of strict versus negligent liability. Which approach is more suitable for South Africa? Justify your answer. (5)



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QUESTION 5 (FIVE)

5.1 Compare and contrast weak and strong sustainability. Which approach is more appropriate for South Africa's development context? (10)

5.2 Explain how the discount rate affects decisions related to climate change mitigation. Why is this particularly important when evaluating long-term projects such as nuclear power stations? (10)

5.3 Outline the key steps in conducting a cost-benefit analysis for a proposed nuclear power station in South Africa. (5)

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