

# University of Fort Hare

Honours Supplementary Examinations

Supplementary Examination 2018/2019

AGE 408 / 608

AGRICULTURAL RESOURCE ECONOMICS

Time: 3Hours

Marks: 100

This paper consists of one page, excluding the cover page

Internal Examiners

Dr A. Taruvinga

Prof M. Aliber

External Examiner

Prof A Belete

Instructions

Answer any four questions of your choice

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**Question 1: Environmental Evaluation Techniques:**

- a) Travel cost method:
  - i. Describe the environmental conditions/problems where travel cost method may be used. [4]
  - ii. List and briefly explain nine steps involved in conducting the zonal travel cost model. [18]
  - iii. List and briefly explain three types of bias and problems associated the travel cost model. [3]

**Question 2: Property Rights, Taxation and Optimal Pollution:**

Graphically illustrate and explain how pollution tax may encourage the installation of pollution abatement equipment by polluting agents. *Clue: Use the abatement cost – net benefit relationship graph.* [25]

**Question 3: Property rights, Externalities and Environmental Problems:**

Using the static transformed logistic growth curve into revenue cost curves; simulate the conservation implications of managing renewable natural resources when harvesting effort is costless under the following property rights regimes: [25]

- a) Private property rights
- b) Common property rights
- c) Open access property rights

*Clue: draw a graph first, use the graph to simulate conservation implications under each property right regime.*

**Question 4: Valuing Environmental Goods and Services:**

Define and give two appropriate examples for each of the following terms:

- a) Existence value. [9]
- b) Total economic value. *Clue: definition only without examples.* [8]
- c) Non-consumptive user value. [8]

**Question 5: Tourism and Community based Natural Resource Management:**

- a) Describe the procedure for establishing a community based ecotourism project. [12.5]
- b) Discuss some of the major challenges faced by community based ecotourism projects in rural Africa. [12.5]