AFRICA UNIVERSITY

A United Methodist-Related Institution

COLLEGE OF HEALTH, AGRICULTURE & NATURAL RESOURCES

ANR 301 ENVIRONMENTAL & NATURAL RESOURCE ECONOMICS

END OF SECOND SEMESTER EXAMINATIONS

APRIL / MAY 2019

LECTURER: DR D. MLAMBO

DURATION: 3HRS

<u>GENERAL INSTRUCTIONS TO CANDIDATES</u>

1. **Do NOT write your name on the answer sheet**

2. Answer **FOUR** questions only

3. Question **1** in Section A is **Compulsory**

4. Answer any **THREE** questions from Section B

5. Begin your answer for each question on a new page

6. Each question is worth a total of **25 marks**

7. Credit will be given for neat, well-written and lucid work.

SECTION A

1. Explain how you would apply the contingent valuation method to estimate the loss of value of water resources due to pesticide contamination   [25 marks]

SECTION B

2. With the aid of a diagram, explain in detail the relationship between economic system and the environment   [25 marks]

3. a) Illustrate the difference between "private costs" and social costs"
                                                                                           [8 marks]

   b) Citing specific examples, explain how social costs can be reduced or avoided   [17 marks]

4 a) What do you understand by the term "market failure"?   [5 marks]
   b) Using examples, explain how public goods and common property resources cause market failure   [20 marks]

5. Demonstrate how the following economic instruments are used to protect natural resources:
      a) Green subsidies   [7 marks]
      b) Environmental taxes   [7 marks]
      c) Carbon credits   [6 marks]
      d) Eco-labelling and certification   [5 marks]

6a) Examine why human-induced climate change is considered a negative externality   [10 marks]
   b) Describe any three market based instruments that are used to internalize human-induced climate change externalities   [15 marks]

END OF EXAMINATION PAPER