



**MACHAKOS UNIVERSITY**

**UNIVERSITY EXAMINATIONS 2018/2019**

**THIRD SPECIAL/ SUPPLEMENTARY EXAMINATIONS FOR THE DEGREE OF  
BACHELOR OF ENVIRONMENTAL SCIENCE**

**ESU 305 ENVIRONMENTAL ECONOMICS**

**DATE:**

**TIME:**

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**INSTRUCTIONS:**

- (i) Answer question one (Compulsory) and any other two questions
- (ii) Do not write on the question paper
- (iii) Show your working clearly
- (iv) Written material or electronic gadgets including mobile phones are not allowed in exam room.

**QUESTION ONE****(30 MARKS)**

- a) Define the term sustainable development. **(2 marks)**
- b) Explain the policies that a country can adopt to ensure sustainable development. **(8 marks)**
- c) Examine four key economic incentives to pollution control. **(8 marks)**
- d) Discuss three international trade agreements that have an impact on global environment **(12 marks)**

**QUESTION TWO****(20 MARKS)**

- a) Define a property right and point out some of its characteristics. **(10 marks)**
- b) Explain the Inverted U- kuznet curve and its limitations **(10 marks)**

**QUESTION THREE****(20 MARKS)**

Write brief notes on the following environmental concepts

- i. Information Asymmetry **(6 marks)**
- ii. Global warming **(6 marks)**
- iii. Environmental Impact Assessment **(8 marks)**

**QUESTION FOUR****(20 MARKS)**

- a) Discuss how the environment affects the economy. **(8 marks)**
- b) Clearly distinguish between the following paired concepts.
  - i. Environmental Economics and Resource Economics. **(4 marks)**
  - ii. Ambient Standard and Emission standard. **(4 marks)**
  - iii. Ultimate resource and steady state economics. **(4 marks)**

**QUESTION FIVE****(20 MARKS)**

- a) Using diagrams, explain the relevance of Pigovian tax in controlling pollution. **(10 marks)**
- b) Explain the coarse theorem and illustrate using diagrams how the social optimal pollution can be achieved. **(10 marks)**