



# **MACHAKOS UNIVERSITY**

**University Examinations for 2020/2021 Academic Year**

**SCHOOL OF BUSINESS AND ECONOMICS**

**DEPARTMENT OF ECONOMICS**

**THIRD YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR**

**BACHELOR OF ENVIRONMENTAL SCIENCE**

**ESU 305: ENVIRONMENTAL ECONOMICS**

**DATE: 23/3/2021**

**TIME: 2.00-4.00 PM**

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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) 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)
- b) Explain international trade agreements that have an impact on global environment (10 marks)
- c) Examine four key economic incentives to pollution control. (8 marks)

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

- a) Explain the Coase theorem and illustrate using diagrams how the social optimal pollution can be achieved. (10 marks)
- b) Explain the Inverted U- Kuznets curve and its limitations (10 marks)

**QUESTION THREE (20 MARKS)**

Write brief notes on the following environmental concepts

- a) Information Asymmetry (6 marks)
- b) Global warming (6 marks)
- c) Environmental Impact Assessment (8 marks)

**QUESTION FOUR (20 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) Discuss how the environment affects the economy. (10 marks)

**QUESTION FIVE (20 MARKS)**

- a) Using diagrams, explain the relevance of Pigouvian tax in controlling pollution. (10 marks)
- b) Define a property right and point out some of its characteristics. (10 marks)