



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

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 socially 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)