INTERNATIONAL UNIVERSITY OF EAST AFRICA
'Learning to Succeed'

FACULTY OF SCIENCE AND TECHNOLOGY

END OF SEMESTER EXAMINATIONS - AUGUST 2025

PROGRAMME: BSEM
YEAR/SEM: YEAR 2/SEMESTER 2
COURSE CODE: BSE2203
NAME: CARBON TRADING

DATE:
TIME:

INSTRUCTIONS TO CANDIDATES:

SECTION A

Answer all questions in this section (compulsory)

Question 1:

a) Define the term "carbon emission schemes" and provide an example (6marks).

b) Explain the concept of an "Emission Reduction Purchase Agreement (ERPA)" (6marks).

c) Describe two mechanisms that promote emission reductions in the carbon market (6marks).

d) Discuss how carbon finance can address the economic implications of climate change (6marks).

e) Provide an overview of the role of carbon pricing in mitigating climate change (6marks).

f) Explain how “Cap and Trade” works (6marks).

g) Differentiate between compliance and voluntary markets. (4 marks)

Question 2:

a) Outline the key objectives of the Kyoto Protocol and the Paris Agreement. (5 marks)

b) Explain the concept of *Nationally Determined Contributions (NDCs)*. (5 marks)

c) Identify four major greenhouse gases and their sources. (5 marks)

d) Explain how carbon dioxide contributes to global warming. (5 marks)

e) Define carbon trading and explain its purpose in addressing climate change. (5 marks)

f) Distinguish between *cap-and-trade* systems and carbon offset schemes. (5 marks)

g) Differentiate between compliance carbon markets and voluntary carbon markets. (5 marks)

Explain how Uganda can participate in voluntary carbon markets. (5 marks

SECTION B

Answer only three (3) questions from this section

Question 1:

Analyze the effectiveness of carbon trading as a tool for mitigating climate change, considering both advantages and limitations (20marks).

Question 2:

6. Explore the various types of risks in carbon offset projects in developing countries (20 marks).

Question 3:

DRC intends to reduce her carbon emissions, however, a decision is yet to be made on whether to use cap and trade or carbon offsets. As a carbon trading specialist, advise DRC on which mechanism to use considering its advantages over the other (20 marks).

Question 4:

Assess the challenges and opportunities in implementing emission reduction projects in developing countries. Discuss how these challenges can be addressed (20 marks).

Question 5:

Discuss the concept of "carbon leakage" and its implications for the global carbon market. Provide strategies to minimize carbon leakage (20 marks).

Question 6:

Write short notes on carbon offsets, cap and Trade, and Clean Development mechanism (20 marks).

Question 7:

a) Discuss two ethical concerns associated with carbon offsetting. (10 marks)
b) How can carbon trading perpetuate environmental injustice if not well regulated? (10 marks)

Question 8:

a) How can private companies in Uganda benefit from participating in carbon markets? (10 marks)
b) Identify two community-based carbon offset projects and explain their social and environmental benefits. (10 marks)

Question 9:

a) Define carbon pricing and explain its rationale. (10 marks)
b) Compare carbon tax and cap-and-trade in terms of effectiveness and flexibility. (10 marks)

Question 10:

a) Explain the purpose of the Clean Development Mechanism under the Kyoto Protocol. (10 marks)

b) Briefly discuss challenges faced by African countries in implementing CDM projects. (10 marks)

Question 11:

a) What does MRV stand for in the context of carbon trading? (10 marks)
b) Explain why MRV is essential for ensuring the integrity of carbon markets. (10 marks)

Question 12:

a) What is a carbon credit? (4 marks)
b) Describe how carbon credits are generated from reforestation or renewable energy projects. (8 marks)
c) Discuss two benefits and two limitations of using carbon offsetting as a mitigation strategy. (8 marks)