INTERNATIONAL UNIVERSITY OF EAST AFRICA
'Learning to Succeed'

FACULTY OF SCIENCE AND TECHNOLOGY

END OF SEMESTER EXAMINATIONS - APRIL 2025

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

DATE:
TIME:

INSTRUCTIONS TO CANDIDATES:

SECTION A

Answer only one question

Question 1:

a) Define the term "carbon emission schemes" and provide an example (5marks).

b) Describe two mechanisms that promote emission reductions in the carbon market (5marks).

c) Explain how “Cap and Trade” works (5marks).

d) Explain the concept of an "Emission Reduction Purchase Agreement (ERPA)" (5marks).

e) Discuss how carbon finance can address the economic implications of climate change (5marks).

f) Provide an overview of the role of carbon pricing in mitigating climate change (5marks).

c) Discuss the current trends in carbon markets.
(5marks)

d) What are the challenges and risks involved in both compliance and voluntary markets?
(5marks)

Question 2:

A multinational corporation has set up operations in Uganda and is looking to offset its carbon emissions through participation in international carbon markets. The company is considering afforestation and renewable energy investments to generate carbon credits. However, there are concerns from local communities about land use changes and their rights.

a) Discuss the key principles of carbon trading and how this company can participate effectively in global carbon markets.
(10marks)

b) Analyze the potential environmental, social, and economic challenges that may arise from this company's carbon trading activities in Uganda and suggest possible mitigation measures.
(10marks)

c) Discuss the ethical issues in carbon offset project like the ones mentioned in this case study.
(10marks)

d)Suggest ways in which companies can increase carbon trading integrity. (10marks)

SECTION B

Answer only three (3) questions from this section

Question 1:

a) a) How do emission Trading schemes work. (5marks)

b) Explore the benefits of emission Trading schemes. (10 marks)

c) Discuss the challenges faced by the different emission Trading schemes in the World. (10 marks)

Question 2:

a) a) Define the term carbon footprint. (5marks)

b) b) Explain the tools and methods used in carbon footprint. (5marks)

c) c) Suggest strategies that can be implemented to reduce carbon foot print by;

i. Individuals (5marks)

ii. Business (5marks)

Question 3:

a) Describe the role of technology in carbon trading, including blockchain and remote sensing. (10marks)

b) Assess how technological advancements can improve the efficiency and transparency of carbon markets. (10marks)

Question 4:

a) Discuss the concept of additionality in carbon trading. (10marks)

b) Explain how additionality is assessed and why it is crucial in validating carbon offset projects. (10marks)

Question 5:

a) Explain the different sources of climate finance. (10marks)

b) Discuss the economic and societal consequences of climate change in developing countries. (10marks)

Question 6:

a) Define an Emission Reduction Purchase Agreement and explain its key components. (10marks)

b) Explain the different emission reduction delivery and payment options. (5marks)

c) Differentiate between fixed and floating price. (5marks)

Question 7:

a) Describe the Clean Development Mechanism (CDM) and its application in developing countries. (10marks)

b) Evaluate the challenges that developing countries face in implementing CDM projects. (10marks)

Question 8:

a) Analyze the role of carbon pricing in reducing greenhouse gas emissions. (10marks)

b) Compare and contrast carbon taxes and cap-and-trade systems, highlighting their effectiveness.

(10marks)

Question 9:

a) Explain the concept of carbon offsetting and how it contributes to climate change mitigation. (10marks)

b) Discuss the ethical and economic implications of carbon offsetting, providing relevant examples. (10marks)

Question 10:

a) Define carbon markets and differentiate between compliance and voluntary carbon markets. (10 marks)

b) Discuss the role of the Kyoto Protocol and the Paris Agreement in shaping global carbon trading mechanisms. (10 marks)

Question 11:

a) Assess the challenges and opportunities in implementing emission reduction projects in developing countries. (10marks)

b) Discuss how these challenges can be addressed. (10marks).

Question 12:

a) Explain the major criticisms of carbon trading as a climate change mitigation strategy. (10marks)

b) Suggest policy recommendations to improve the effectiveness of carbon trading in addressing climate change. (10marks)