



FACULTY OF SCIENCE AND TECHNOLOGY
END OF SEMESTER EXAMINATIONS - MAY 2024/2025

PROGRAMME: BSEM

YEAR/SEM: YEAR 2/SEMESTER 2

COURSE CODE: BSE2203

NAME: CARBON TRADING

DATE: 2025-08-06

TIME: 2:00-5:00PM

INSTRUCTIONS TO CANDIDATES:

1. Read the instructions very carefully
2. The time allowed for this examination is STRICTLY three hours
3. Read each question carefully before you attempt and allocate your time equally between all the Sections
4. Write clearly and legibly. Illegible handwriting cannot be marked
5. Number the questions you have attempted
6. Use of appropriate workplace examples to illustrate your answers will earn you bonus marks
7. Any examination malpractice detected will lead to automatic disqualification.

DO NOT WRITE ANYTHING ON THE QUESTION PAPER

Section A Answer all questions in this section (compulsory)

Question 1:

- 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:

- 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 2:

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 3:

- 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 4:

- 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)

Question 5:

- 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 6:

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