



FACULTY OF SCIENCE AND TECHNOLOGY
END OF SEMESTER EXAMINATIONS - APRIL 2025

PROGRAMME: BSEM

YEAR/SEM: YEAR 1/SEMESTER 2

COURSE CODE: BSE1204

NAME: CONSERVATION AND SUSTAINABLE DEVELOPMENT

DATE: 2025-04-23

TIME: 9:00AM-12:00PM

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 (40 marks)

Question 1:

- a. Mention the various types of ecosystems (6 marks)
- b. How does man benefit from natural resources? (6 marks)
- c. List at least six SDGs (6 marks)
- d. Define the following terms as used in environmental science; 2 marks each
 - i. Extinction
 - ii. Endangered species
 - iii. Species
 - iv. Sustainable agriculture
- e. Differentiate between renewable and non-renewable resources. Give at least 3 examples under each category. (7 marks)
- f. Why do environmental scientists recommend renewable energy versus non-renewable energy sources? (7 marks)

Section B Attempt any 3 questions from this section (60 marks)

Question 1:

Define sustainable development and explain its three main pillars. (20 marks)

Question 2:

- a. Climate change has significant impacts on the environment, ecosystems, economies, and societies worldwide. Outline these impacts (10 marks)
- b. Giving at least three practical examples under each category, differentiate between climate change adaptation and climate change mitigation. (10 marks)

Question 3:

Two neighboring regions share a river as their primary water source. One region is heavily industrialized and uses large amounts of water for manufacturing, while the other relies on the river for agriculture and drinking water. Recently, the agricultural community has reported water shortages and pollution from industrial waste. How should government address this conflict to ensure fair and sustainable water distribution for both regions? 20 marks

Question 4:

How does climate change impact biodiversity, and what strategies can be implemented to mitigate its effects? (20 marks)

Question 5:

A rural community depends on hunting for food and income, but certain species are being overhunted to the point of decline. Conservation organizations are proposing hunting restrictions, but locals fear this will negatively impact their livelihoods and traditions. What alternative solutions can be proposed to ensure species conservation while addressing the economic and cultural needs of the community? 20 marks

Question 6:

Human well-being directly and indirectly relies on the quality of ecosystems. Discuss the various ways in which humanity benefits from ecosystems. 20 marks