



NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF ENVIRONMENTAL SCIENCES

DEPARTMENT OF ENVIRONMENTAL SCIENCE

**MASTER OF SCIENCE IN CLIMATE CHANGE AND SUSTAINABLE
DEVELOPMENT**

KEY CONCEPTS OF CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT

ECS 5101

Final Examination Paper

October 2024

This examination paper consists of 2 pages

Time Allowed: 3 hours

Total Marks: 100

Special Requirements: None

Examiner's Name: Dr N Manyeruke

INSTRUCTIONS

1. Answer any **FOUR** questions
2. Each question carries 25 marks

MARK ALLOCATION

QUESTION	MARKS
1.	25
2.	25
3.	25
4.	25
5.	25
6.	25
TOTAL	100

1. Explain how climate change is brought about by the interactions that take place in the four spheres of the environment.
2. Discuss the feasibility of achieving sustainable development goals in the face of climate change.
3. Adaptation is one key strategy towards climate change management. Discuss the adaptation measures that the government of Zimbabwe can implement to promote food security.
4. Matabeleland South is facing declines in livestock and crop production due to climate change. Discuss the measures that you implement to improve climate resilience
5. a) With reference to specific examples, discuss the impacts of climate change on Zimbabwe (15 marks)
b) Suggest water management measures that can be implemented by the government of Zimbabwe. (10 marks)
6. With reference to examples in developing countries evaluate the effectiveness of the REDD+ initiative as it seeks to promote carbon offsets.