



**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**FACULTY OF ENVIRONMENTAL SCIENCES**

**DEPARTMENT OF ENVIRONMENTAL SCIENCE**

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

**TRANSDISCIPLINARY SKILLS AND THINKING**

**ECS 5102**

**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 W Malinga**

**INSTRUCTIONS**

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

**MARK ALLOCATION**

<b>QUESTION</b>	<b>MARKS</b>
1.	25
2.	25
3.	25
4.	25
5.	25
6.	25
<b>TOTAL</b>	<b>100</b>

1. Define transdisciplinary thinking in climate change and sustainable development. How does it differ from interdisciplinary and multidisciplinary approaches? Provide examples to illustrate your points.
2. Discuss the ethical implications of climate change policies. How do these policies affect marginalized communities, and what transdisciplinary approaches could address these disparities?
3. How can different disciplines work together to improve public understanding of climate change? Propose a communication strategy that integrates scientific, artistic, and educational approaches.
4. Discuss the role of transdisciplinary research in developing new technologies to combat climate change. Provide examples of successful initiatives or innovations.
5. Critically evaluate the role of transdisciplinary thinking in developing effective climate change adaptation strategies?
6. Analyse the importance of stakeholder engagement and participatory approaches in transdisciplinary climate change research.