



# **MAASAI MARA UNIVERSITY**

**REGULAR UNIVERSITY EXAMINATIONS  
2023/2024 ACADEMIC YEAR**

**FIRST YEAR SECOND SEMESTER**

**SCHOOL OF NATURAL RESOURCE,  
ENVIRONMENTAL STUDIES AND AGRICULTURE**

**MASTERS IN ENVIRONMENTAL HEALTH AND  
BIOLOGY**

**COURSE CODE: SES 832**

**COURSE TITLE: ENVIRONMENTAL  
TOXICOLOGY AND PHYSIOLOGY**

**DATE: 31/1/2024**

**TIME: 1100-1300 HRS**

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**INSTRUCTIONS TO CANDIDATES**

Answer **ALL** questions in are **COMPULSORY**

*This paper consists of 2 printed pages. Please turn over*

**All Questions are compulsory in Section A (30 marks) and pick any two (2) questions in Section B.**

**SECTION A:**

1. Discuss the current global state of environmental toxicology, highlighting key challenges faced by researchers and policymakers. (10 marks)
2. Analyze recent innovations and methodologies employed in environmental toxicology research and their potential to address these challenges. (10 marks)
3. Discuss future trends and potential solutions in the field of environmental toxicology, considering the evolving nature of environmental contaminants and their implications for the planet and its inhabitants. (10 marks)

**SECTION B:**

4. In recent decades, environmental toxicology has emerged as a crucial field in understanding the impact of human activities on the natural world. Discuss the global state of environmental toxicology, examining key challenges, advancements, and their implications for environmental sustainability. (20 marks)
5. In recent decades, the extensive use of agrochemicals has revolutionized agriculture, ensuring higher yields and economic growth. However, this progress has come at a cost, with significant implications for environmental health and biodiversity. Explore the field of Environmental Toxicology as it relates to agrochemicals, focusing on the risks they pose to ecosystems, human health, and non-target organisms. (20 marks)
6. a. Investigate the physiological mechanisms that organisms employ for detoxifying harmful substances (10 marks).  
b. Describe how organisms eliminate toxins (10 marks).

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