



# **MAASAI MARA UNIVERSITY**

**REGULAR UNIVERSITY EXAMINATIONS**

**2022/2023 ACADEMIC YEAR**

**FIRST YEAR FIRST SEMESTER**

**SCHOOL OF NATURAL RESOURCES, TOURISM  
AND HOSPITALITY**

**MASTER OF ENVIRONMENTAL STUDIES  
(ENVIRONMENTAL HEALTH)**

**COURSE CODE: SES 805**

**COURSE TITLE: ENVIRONMENTAL IMPACT  
ASSESSMENT**

**DATE: 10<sup>TH</sup> FEBRUARY, 2023**

**TIME: 1400-1700 HRS**

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## **INSTRUCTIONS TO CANDIDATES**

Answer **ALL** questions in Section A, and any **TWO** questions in Section B

*This paper consists of 4 printed pages. Please turn over*

## **SECTION A: 20 MARKS**

### **QUESTION 1**

- a) Discuss the costs and benefits of using an Environmental Impact Assessment (EIA) process and provide local examples that highlight the gains that can be obtained from a well-managed EIA. **(5 Marks)**
- b) The Narok County government has contracted to fence 120 acres of land and upgrade the Narok Airstrip. Briefly explain the role and contribution of public involvement in an EIA exercise to be conducted on the piece of land. **(5 Marks)**
- c) A proponent has designed a major Wind Power Project to meet the acute power shortage in Kenya. Evaluate the alternative locations for this project based on technical, economic, environmental and social constraints by an interdisciplinary project team. **(5 Marks)**
- d) Discuss, using appropriate illustrations, how EIA, which takes place within the regulatory frameworks established in Kenya and international agencies, can be successful through the arrangements in the frameworks. **(5 Marks)**

## **SECTION B: 30 MARKS - ATTEMPT ANY TWO QUESTIONS**

### **QUESTION 2**

Explain the most critical issue in Environmental Health which should be addressed by Environmental Impacts Assessments based on responses to the following:

**(15 Marks)**

- a) The identified problem and why you believe it is a problem.
- b) Why problem is the most pressing one.
- c) The steps that should be taken by Environmental Health Professionals to address this problem.
- d) Suggestions for correcting or limiting the problem.

### **QUESTION 3**

- a) In the context of the historical origins of EIA, EIA was a learning process. Explain this statement **(5 Marks)**
- b) EIA represents a systematic process that examines the environmental consequences of development activities. Outline the key steps in the EIA process as it is conducted in Environmental Assessment. **(10 Marks)**

#### QUESTION 4

(a) A car washing and lubricating company has been operating for more than ten (10) years in a terrain with the following characteristics: porous, filterable with a phreatic (this surface normally coincides with the water table) level near to the surface (1.5 m depth). The company is located close to an estuary branch which is quite useful for them since they discharge all the disposals and waste generated by this activity directly into the estuary. These disposals contain a high level of oils and greases. All the dumping from the car maintenance goes directly into the soil since there are no palettes or gutters. The lubricating company operates for 20 hours seven days per week. Following complaints from local people, the Municipality has arranged the execution of an EIA study of which you are part of the study team. .

i. State the type of environmental evaluation to be performed by the Municipality according to this case. **(2 Marks)**

ii. Indicate the minimum number and type of professionals who should be part of the consultancy group performing the EIA. **(2 Marks)**

iii. Highlight three environmental impacts of this activity **(3 Marks)**

iv. Indicate three mitigation measures you will propose as part of your Environmental Management Plan to mitigate the impacts identified **(3 Marks)**

(b) Some steps in the EIA process have proved to be more difficult to implement than others. From your understanding of the process, identify which these might be and justify why they have proved to be problematic **(5 Marks)**

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