MAASAI MARA UNIVERSITY

REGULAR UNIVERSITY EXAMINATIONS
2020/2021 ACADEMIC YEAR
FOURTH YEAR SECOND SEMESTER

SCHOOL OF NATURAL RESOURCE, TOURISM AND HOSPITALITY

BACHELOR OF ENVIRONMENTAL STUDIES (BIOLOGY AND HEALTH)

COURSE CODE: EBH 3224
COURSE TITLE: FIELD TECHNIQUES IN ENVIRONMENTAL BIOLOGY AND HEALTH

DATE: 06TH OCTOBER, 2021 **TIME: 08:30-10:30 HOURS**

INSTRUCTIONS TO CANDIDATES

Answer **ALL** questions in section **A** and any other **THREE** in section **B.**

This paper consists of 2 printed pages. Please turn over

SECTION A (25 MARKS)

Attempt ALL questions in this section.

1. Explain how you sample tap water for microbial analysis (***5 marks***)
2. Experimental methods in ecological studies are limited by practical, logistical and ethical constraints. Discuss this statement (***5 marks***)
3. Give reasons why the importance of measuring the accuracy and consistency of research instruments (e.g. questionnaires) known as validity and reliability, respectively, have been documented in several studies, but their measure is not commonly carried out among health science researchers in developing countries (***5 marks***)
4. Outline how you would collect a representative deep soil sample **(4 *marks*)**.
5. Explain briefly three goals of ecological field studies **(6 *marks*)**

SECTION B (Attempt any THREE questions)

6. Discuss sample collection techniques over a contaminated site. In your discussion include
   i) Equipment
   ii) Field operation
   iii) Quality assurance
   iv) Sample documentation (*15**marks***)
7. Explain the process you would undertake to develop a field tool to enable you undertake a health needs assessment of Majengo informal settlement residents (***15 marks***)
8. Discuss solid waste management (SWM) methods that upcoming urban areas can adopt to sustainably manage the wastes ***(15 marks)***
9. Give a detailed field and lab sampling and analysis process you would adopt to assess the bacteriological quality of shallow wells around Maasai Mara University (***15 marks***)

********** END OF EXAM QUESTIONS**********