



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY
EXAMINATIONS 2018/2019 ACADEMIC
YEAR**

**THIRD YEAR SECOND SEMESTER
SCHOOL OF TOURISM AND NATURAL
RESOURCE MANAGEMENT
BACHELOR OF SCIENCE
(ENVIRONMENTAL BIOLOGY AND
HEALTH)**

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

**DATE: 24TH APRIL, 2019
10:30AM**

TIME: 08:30 -

INSTRUCTIONS TO CANDIDATES

ATTEMPT ALL QUESTIONS IN SECTION A AND ANY 3 IN SECTION B

Support your answers with relevant examples and illustrations and clearly show your calculations, where relevant.

This paper consists of 2 printed pages. Please turn over

SECTION A (25 MARKS)

Attempt ALL questions in this section.

1. State 2 biotic and 3 abiotic factors that influence quality of drinking water **(5 marks)**

2. Outline 5 major challenges Kenya faces towards achieving health and sanitation related SDGs **(5 marks)**

3. Distinguish between,
 - i. Disease prevalence and disease incidence
 - ii. Alpha and beta species diversity
 - iii. Environmental survey and environmental monitoring **(5marks)**.

4. Briefly outline the methodological approach to undertaking a qualitative analysis of a stream benthic macroinvertebrate community **(5marks)**.

5. Outline 2 major ecological and 3 major public health concerns over open cast mining **(5 marks)**.

SECTION B (Attempt any THREE questions)

6. Discuss the main challenges Kenya faces towards implementing the KIWASH (Kenya Integrated WASH) Programme (**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*****