



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES
DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES

**UNIVERSITY EXAMINATION FOR:
DIPLOMA IN ENVIRONMENTAL AND HEALTH SCIENCE 18S/ YEAR 2/
SEMESTER 2**

**AES 2109: ENVIRONMENTAL MICROBIOLOGY
SPECIAL/SUPPLEMENTARY EXAMINATION
SERIES: AUGUST 2019
TIME: 2 HOURS**

Instructions to Candidates

This paper consists of FIVE questions

Answer question ONE (COMPULSORY) and any other TWO questions.

This paper consists of two printed pages.

Mobile phones are NOT allowed in the examination room

Do not write on the question paper

QUESTION ONE (30 MARKS)

- a) Briefly describe chemical methods of sterilization [5mks]
- b) Briefly explain public health importance of fungi [5mks]
- c) State the general characteristics of fungi [5mks]
- d) Briefly explain stages of vaccine production [5mks]
- f) Differentiate between live attenuated vaccine and killed vaccine [5mks]
- g) Briefly describe the role of microorganisms in vaccine production [5mks]

QUESTION TWO

Describe the role of microorganisms in vaccine production [15mks]

QUESTION THREE

Describe standard drinking water sampling procedure for microbial analysis in the laboratory [15mks]

QUESTION FOUR

Discuss various types of media based on function giving examples in each type [15mks]

QUESTION FIVE

Describe the role of microorganisms in biogeochemical cycles [15mks]