



(University of Choice)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY

(MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

MAIN EXAM

2021/2022 ACADEMIC YEAR

FOURTH YEAR SECOND SEMESTER EXAMINATION

FOR THE DEGREE OF BACHELOR OF SCIENCE IN ENVIRONMENTAL HEALTH

COURSE CODE: HEH 122

COURSE TITLE: MICROBIOLOGY, VIROLOGY AND MYCOLOGY

DATE: 20/4/2022

TIME: 3.00-5.00 pm

INSTRUCTIONS TO CANDIDATES:

- 1. This paper consists of two sections (Section A and Section B)**
- 2. Answer ALL the questions in section A and any TWO questions in section B**

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

Paper Consists of 2 Printed Pages. Please Turn Over

This Paper Consists of 3 Printed Pages. Please Turn Over ►

Section A 40 MARKS (Answer all questions)

1. Protozoa like fungi and algae can reproduce both asexually and sexually. Briefly explain the following forms of reproduction **(5 marks)**
 - I. Binary fission.
 - II. Schizogony
 - III. Budding.
 - IV. Syngamy
 - V. Conjugation
2. Protozoa live in potentially dangerous environments, and have evolved a variety of protective structures that help them survive. List three of such structures **(3 marks)**
3. Briefly describe the classification of protozoa **(4 marks)**
4. The sources of the parasites are different. Enumerate five possible ways through which humans can be exposed to parasites
5. Helminthes are classified into three major groups. These are: **(3 marks)**
6. There are five medically important species of Schistosoma parasites. Name them and what each of them causes **(5marks)**
7. State four ways through which Soil-transmitted helminths impair the nutritional status of the people they infect **(4 marks)**
8. Toxoplasmosis most often occurs when *T. gondii* oocysts or tissue cysts are accidentally eaten. This usually occurs when: **(4 marks)**
9. *Giardia* infection is almost entirely preventable if you take precautions. Identify four strategies you can take at home as well as when traveling for preventing giardiasis **(4 marks)**
10. Highlight four complications associated with malaria infection **(4 marks)**

SECTION B (30 MARKS) Answer any two questions

11. Discuss preventive measures you can take to control malaria and stop it from spreading further **(15 marks)**
12. Describe the adaptation features of parasites that enhance their survival **(15 marks)**

13. Explain different ways through which parasites affect their hosts **(15 marks)**

