



MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY
(MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

MAIN EXAM

2021/2022 ACADEMIC YEAR

SECOND YEAR SECOND SEMESTER EXAMINATION

FOR THE DEGREE OF BACHELOR OF SCIENCE IN EPIDEMIOLOGY AND
BIOSTATISTICS

COURSE CODE: HEM 228

COURSE TITLE: ONE HEALTH

DATE: 22/04/2022

TIME: 8.00-10.00 AM

INSTRUCTIONS:

- 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**

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over

SECTION A: SHORT ANSWER QUESTIONS (40 Marks)

Instructions

The section has a total of Ten (10) short answer questions (SAQs), carrying a maximum of forty (40) marks total and **Each question 4 marks**

Answer all the questions

Write your answers on the provided university examination booklet

1. Define *One-Health* Concept
2. State the national and global organizations that champion putting '*One-Health*' vision into practice
3. Give four (4) examples of helminthic zoonotic diseases
4. Giving two examples for each, differentiate between direct and indirect routes for pathogen transmission
5. Explain four (4) ways in which droplets are passed through the air from an infected animal to a person
6. Giving appropriate examples, differentiate between endemic and pandemic 4 marks
7. Name the four (4) fungal priority diseases considered in one health in Kenya
8. Explain the following terms as used in the surveillance of zoonotic diseases
 - (a) Participatory epidemiology
 - (b) Digital Pen Technology
9. Rapid Response Team embraces interdisciplinary as opposed to multidisciplinary approach in response to events of public health importance. What are the four (4) the difference between interdisciplinary and multidisciplinary approach in this context (4 Marks)
10. (a) Define risk in relation to *One-Health* (1 mark)
(b) Explain the risk analysis paradigm (3 marks)

LONG ANSWER QUESTIONS (30 Marks)

Instructions

- The section has TWO (3) Long Answer Questions (LAQs), totaling to a maximum of thirty (30) marks
 - Answer Any two questions
 - Write your answers on the provided university examination booklet
1. Using *One-Health* triad model discuss:
 - (a) Environment and climate (5 Marks)
 - (b) Human Behaviour and society (5 Marks)
 - (c) Economies and development (5 marks)
 2. Discuss any five (5) drivers of *One-Health*
 3. Describe the role of each of the following in a county RRT team for COVID-19 response
 - (a) Epidemiologist (5 marks)
 - (b) Infection prevention and control expert (5 marks)
 - (c) Laboratorian (5 Marks)