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(*University of Choice*)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY

(MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

MAIN EXAM

2022/2023 **ACADEMIC YEAR**

FOURTH YEAR SECOND SEMESTER **EXAMINATION**

FOR THE DEGREE OF BACHELOR OF SCIENCE IN EPIDEMIOLOGY AND BIOSTATISTICS

COURSE CODE: HEM 228

COURSE TITLE: **ONE-HEALTH**

DATE: 14/04/202023 **TIME: 3.00-5.00 PM**

INSTRUCTIONS TO CANDIDATES:

ANSWER ALL QUESTIONS IN SECTION IN SECTION A AND ANY QUESTIONS IN SECTION B

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

Paper Consists of 2 Printed Pages. Please Turn Over

SECTION A (ANSWER ALL QUESTIONS)

Short answer questions

A total of 40 marks

Each question 4 marks

1. Define *One-Health* Concept (4 mks)
2. State the difference between emerging and re-emerging infectious diseases (4 mks)
3. Explain what risk management in *One-Health* entail (4 mks)
4. Why would it be necessary to establish a Rapid Response Team (RRT) in a *One-Health* event of public health importance? (4 marks)
5. Explain the "All-Hazard approach" as used in *One-Health* (4 mks)
6. Regarding zoonoses:
   (a) Define zoonoses (2 mks)
   (b) Give four (4) examples of helminthic zoonotic diseases (2 mks)
7. Rapid Response Team embraces interdisciplinary as opposed to multidisciplinary approach in response to events of public health importance. What are the four (4) differences between interdisciplinary and multidisciplinary approach in this context (4 Marks)
8. Giving a relevant *One-Health* example, define
   (a) Endemic disease (2 marks)
   (b) Pandemic disease (2 marks)
9. (a) Define risk in relation to *One-Health* (1 mark)
   (a) Explain the risk analysis paradigm (3 marks)
10. Explain the importance of *One-Health* approach (4marks)

Section B (Choose any 2 questions)

Long answer question

A total of 30 marks

Each question 15 marks

1. Discuss the host, agent and environmental factors contributing to emergence of infectious diseases (15 marks)
2. Describe the five (5) steps in the risk management process in *One-Health* (15 mks)
3. Discuss the emerging infectious diseases of wildlife as a threat to biodiversity and human health (15 mks)