



MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY

(MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

MAIN EXAM

2023/2024 ACADEMIC YEAR

SECOND YEAR FIRST SEMESTER EXAMINATION

FOR THE DEGREE OF BACHELOR OF SCIENCE IN PUBLIC HEALTH

COURSE CODE: HEH 214

COURSE TITLE: ANATOMY AND PHYSIOLOGY OF FOOD ANIMALS

DATE: 6/12/2023  
10.00 AM

TIME: 8.00-

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**INSTRUCTIONS TO CANDIDATES:**

Answer All the Questions in Section A and Any 2 Questions in Section B  
TIME: 2 hour

MMUST observes ZERO tolerance to examination cheating

Paper Consists of 2 Printed Pages. Please Turn Over



SECTION A – Answer ALL the Questions in this section

1. Define the following terms as used in anatomy and physiology of food animals
  - a) Anatomy
  - b) Physiology
2. What is a food animal in Kenya. Give four examples of food animals in Kenya
3. Meat is the flesh of an animal intended to be used as food for human beings hence the handling must be regulated to ensure safety. List any 3 acts that regulate the processing of meat in Kenya. Briefly explain these acts.
4. One of the food animals in Kenya is the bovine which is a ruminant meaning it has 4 stomachs. Identify the four stomachs of a ruminant while explain the function of each.
5. Apart from giving the body its shape, the skeletal system has several other functions in the body of a food animal. List any other 4 functions of the skeletal system while highlighting how this is achieved.
6. The skin covers the whole body and it is one of the body systems. It has several functions as of the body of a food animal Explain how the skin is able to help the body protect itself against microorganisms, dehydration, ultraviolet light and mechanical damage
7. The heart is one of the major organs of the circulatory system that plays a key and vital role in the body of a food animal. Briefly expound on how the heart is able to perform the following functions: -
  - a) Supplying the cells with nutrients
  - b) Removal of waste products to the excretory organs and
  - c) Protecting the body against infections
  - d) Supply the body with oxygen
8. Name any 4 lymph nodes found in head region of a food animal
9. The muscular system of a food animal is tasked the functions of Protection, heat production, movement, circulation, Posture and stability. Ident the 3 types of muscles that form the muscular system if a food animal.

10. Name the organs of the nervous system as you explain where they are found and the functions of each organ

**SECTION B – Answer ANY TWO Questions in this section**

1. Draw the structure of animal cell identifying all the parts of the cell while briefly explaining the different functions of each part. (15 marks)
2. With aid of a neat sketch draw the carcass of a bovine indicating all the major lymph nodes inspected during routing meat inspection of food animals. (15 marks)
3. Discuss in details the endocrine system naming all the organs that form this system and their functions (15 marks)

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