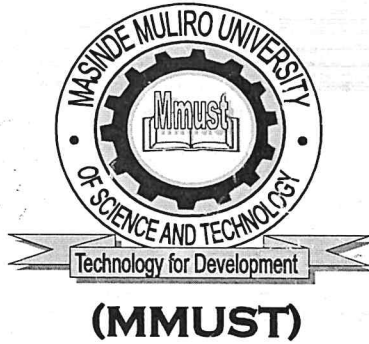




(UNIVERSITY OF CHOICE)

# **MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**MAIN CAMPUS**

**UNIVERSITY EXAMINATIONS**

**2023/2024 ACADEMIC YEAR**

**BSc. SECOND SEMESTER EXAMINATIONS**

**MAIN EXAMINATION**

**FOR THE DEGREE OF BSc. IN:**

**ANIMAL PRODUCTION AND PROCESSING TECHNOLOGY**

**COURSE CODE: AAP 103**

**COURSE TITLE: PHYSIOLOGY OF FOOD ANIMALS**

**DATE: 12.04.2024**

**TIME: 3-5PM**

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## **INSTRUCTIONS TO CANDIDATES**

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

*MMUST observes ZERO tolerance to examination cheating*

**SECTION A: ANSWER ALL QUESTIONS**

a) Define the following terms as used in trans-membrane transport of ions in and out of body cells (5 marks)

- Osmosis
- Simple diffusion
- Active transport
- Co-transport
- Hydrostatic pressure

b) Give five functions of the skin (5 marks)

c) Explain the functions of insulin and glucagon in regulation of blood sugar (5 marks)

d) Explain the process of muscle contraction (5 marks)

e) List the mechanisms employed by the body in maintaining acid-base balance

(5 marks)

f) Give the different types of hormones based on their chemical structure (5 marks)

**SECTION B: ANSWER ANY TWO QUESTIONS**

g) Discuss the role of the kidney in osmoregulation (20 marks)

h) Describe digestion of carbohydrates and proteins in monogastrics (20 marks)

i) Explain with illustration the process of respiration as it occurs in fish (20 marks)