



MACHAKOS UNIVERSITY

University Examinations 2019/2020 Academic year

SCHOOL OF HEALTH SCIENCES

DEPARTMENT OF PUBLIC AND COMMUNITY HEALTH

SECOND YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE IN PUBLIC HEALTH.

HPH 205: ANATOMY AND PHYSIOLOGY OF FOOD ANIMALS

DATE: 3/12/2019

TIME: 8.30-10.30 AM

INSTRUCTIONS

This paper consists of two sections A and B

SECTION A:

Specific Instructions

- This section has one question
- This question is **COMPULSORY**
- The question is **30 Marks**

- | | | |
|------|---|-----------|
| a) | Define the following terminologies | (3 marks) |
| i. | Bolus | |
| ii. | Neuron | |
| iii. | Erythropoiesis | |
| b) | Identify food animals based on their classification | (3 marks) |
| c) | Outline the functions of the skin of a cow | (3 marks) |
| d) | Using examples give categories of bones of various food animals | (3 marks) |
| e) | Outline the functions of the skeletal system of a bovine | (3 marks) |
| f) | Differentiate between exocrine and endocrine glands | (3 marks) |
| g) | Identify the steps of rumination in the digestion system of ruminants | (3 marks) |
| h) | Briefly describe the sections of the heart of ruminants | (3 marks) |

- i) Highlight the importance of thyroid gland in animals (3 marks)
- j) Briefly describe the anatomical adaptations of Avian. (3 marks)

SECTION B:

Specific Instructions

- This section has four (4) question
- Answer any two (2) questions
- Each question is 20 Marks

QUESTION TWO (20 MARKS)

- a) Discuss the importance of anatomy and physiology of food animals to a public health professional (10 marks)
- b) Draw the diagram of the kidney and describe its functions (10 marks)

QUESTION THREE (20 MARKS)

- a) Describe the special skin structures of food animal (10 marks)
- b) During meat inspection at local slaughter house a farmer comes complaining of his stolen 2-year-old cow by a butcher. Describe how you would determine or estimate the age of cattle (10 marks)

QUESTION FOUR (20 MARKS)

- a) Giving examples, discuss the different types of epithelial tissues found in food animals (10 marks)
- b) Describe the four compartments of the digestive of ruminants (10 marks)

QUESTION FIVE (20 MARKS)

- a) Describe the following structures of a goat (10 marks)
- Arteries
 - Veins
 - Capillaries
- b) Describe the development of long bones in buffalos (10 marks)