



# MACHAKOS UNIVERSITY

University Examinations for 2020/2021

SCHOOL OF HEALTH SCIENCES

DEPARTMENT OF PUBLIC AND COMMUNITY HEALTH

SECOND YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE (PUBLIC HEALTH)

HPH 205: ANATOMY AND PHYSIOLOGY OF FOOD ANIMALS

DATE: 12/8/2021

TIME: 8:30 – 10:30 AM

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## 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. Hormone
  - ii. Nerve
  - iii. Erythrocytes
- b) Outline the functions of the connective tissues (4 marks)
- c) State the features of any three (3) bone cells. (3 marks)
- d) Identification of different parts of a food animal is crucial for reporting during meat inspection. Demonstrate how you would identify any three (3) types of muscle tissues in a bovine. (3 marks)
- e) Outline the functions of the skeletal system of a buffalo (3 marks)

- f) Highlight the morphology of the following blood vessels of a Caprine (3 marks)
- i. Artery
  - ii. Vein
  - iii. Capillary
- g) Illustrate the diagram of a Neutrophil (3 marks)
- h) Draw and label a neurone (3 marks)
- i) Highlight the uses of the hearing sense by animals (2 marks)

## SECTION B: ANSWER ANY OTHER TWO QUESTIONS

### Specific Instructions

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

### QUESTION TWO (20 MARKS)

- a) Describe the components of the circulatory system of a horse (10 marks)
- b) Draw and clearly label the diagram of the following (10 marks)
- i. Bovine male reproductive system
  - ii. Skin of an Ovine

### QUESTION THREE (20 MARKS)

- a) Describe the digestive system of Ruminants. (10 marks)
- b) During an ante-mortem inspection of slaughter animals, you give a directive that only cattle of less than two years should be slaughtered. Demonstrate how you would ascertain that this directive was respected during your post-mortem inspection of meat. (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 Physiology of sight in a sheep (10 marks)

### QUESTION FIVE (20 MARKS)

- a) Describe the systemic circuit of blood circulation in a bovine (10 marks)
- b) Describe the physiology of respiration in a goat (10 marks)