

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

SECOND YEAR EXAMINATION FOR BACHELOR OF SCIENCE IN PUBLIC HEALTH

PUHE 211 – ANATOMY AND PHYSIOLOGY OF FOOD ANIMALS

STREAMS: BSC (PUHE) Y1S2

TIME: 2 HOURS

DAY/DATE:

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INSTRUCTIONS

1. Do not write anything on the question paper.
2. Mobile phones and any other reference materials are NOT allowed in the examination room.
3. The paper has three sections. Answer ALL questions in Sections I and II and ONE question in section III.
4. All your answers for Section I (MCQs) should be on one page.
5. Number ALL your answers and indicate the order of appearance in the space provided in the cover page of the examination answer booklet.
6. Write your answers legibly and use your time wisely

SECTION 1: MULTIPLE CHOICE QUESTIONS [10 MARKS]

1. What is a sagittal plane?
 - a. This is an imaginary plane passing through the body so as to divide the body into equal right and left halves
 - b. This is a directional plane meaning toward the head
 - c. This is any plane parallel to the median plane
 - d. This is a directional plane meaning further from the vertebral column
2. What is a caprine?
 - a. Goat
 - b. Pig
 - c. Sheep
 - d. An animal of the cattle group

3. Which one of the following is not a meat animal according to the Meat control Act (Section 2 & Regulations (Inspection Fees) of Kenya
- Pig
 - Rabbit
 - Camel
 - Donkey
4. What is the scientific name for muscular system?
- Osteology
 - Myology
 - Arthrology
 - Esthesiology
5. Carbohydrates are part of the key chemical components of a cell. Which one of the following is not a key constituent of carbohydrates?
- Carbon
 - Nitrogen
 - Oxygen
 - Hydrogen.
6. Conjugated Proteins consist of simple proteins combined with a component that is not a protein or amino acid (a prosthetic group). Which one of the following is not an example of a conjugated protein?
- Glycoproteins
 - Lipoproteins
 - Nucleoproteins
 - Glucoproteins
7. Which one of the following is not an example of a long bone found in the thoracic limb?
- Tibia
 - Humerus
 - Radius
 - Ulna
8. Connective tissue binds tissues together to give form and strength to organs and provide protection and leverage. Which one of the following is not a key type of connective tissue?
- Ligaments
 - Tendons
 - Cartilage
 - Muscles

9. Leukocytes or white blood cells may be classified as either granulocytes or agranulocytes. Which one of the following is not a type of granulocytes?
- Neutrophils
 - Monocytes
 - Eosinophils
 - Basophils
10. What is the typical pH range for blood of animals
- 5.35 to 5.45
 - 6.35 to 6.45
 - 7.35 to 7.45
 - 8.35 to 8.45

SECTION II: SHORT ANSWER QUESTIONS [40 MARKS]

1. Define the following descriptive terms used in the study of animal anatomy
 - a. Transverse Plane [2 marks]
 - b. Midsagittal plane [2 marks]
 - c. Horizontal Plane [2 marks]
2. Outline four (4) key functions of an integumentary system [4 marks]
3. Discuss at least five (5) types of functional groupings of muscles [10 marks]
4. Since Cell is the functional unit of all animal life, the properties of the cell are equated with those of life. Discuss five (5) key properties of cell [10 marks]
5. The skeletal system is made up of bones and connective tissue and provides structural support for all of the other organ systems. Giving examples, describe at least five (5) classes of bones in an animal body [10 marks]

SECTION III: LONG ANSWER QUESTIONS [20 MARKS]

1. The digestive system reduces the nutritious constituents of food to molecular compounds that are small enough to be absorbed and used for energy and for building other compounds for incorporation into body tissues. In order to perform its functions efficiently, the digestive system is facilitated by accessory organs. Describe the four (4) major accessory digestive organs in domestic food animals [20 marks]
2. The respiratory system consists essentially of the lungs and the passages that conduct air into and out of the lungs, which can be broadly divided into upper and lower

respiratory tract. Describe the structure of the upper respiratory tract of domestic food animals [20 marks]