



## **MASENO UNIVERSITY**

### **UNIVERSITY EXAMINATIONS 2015/2016**

#### **FIRST YEAR FIRST SEMESTER EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE IN PUBLIC HEALTH WITH INFORMATION TECHNOLOGY**

#### **MAIN CAMPUS**

#### **PHT 113: ANATOMY AND PHYSIOLOGY OF FOOD ANIMALS**

Date: 14<sup>th</sup> January, 2016

Time: 8.30 - 10.30 am

---

#### **INSTRUCTIONS:**

- Write your University Registration Number on every Answer Booklet you use.
- Do not write your name on any paper you use.
- The time allowed for this paper is THREE (3) hours.
- The questions are set out in TWO (2) sections, A and B.
- Answer ALL questions in SECTION A and any TWO questions from SECTION B
- Read carefully the additional instructions preceding each section.
- Observe carefully further instruction on the cover of Answer booklets.



## SECTION A

### SHORT ANSWER QUESTIONS (SAQ's) – 40 MARKS

**Instructions:** Answer **ALL** the Ten (10) Questions

1. Define the following anatomical terms (3 marks):
  - a). Medial
  - b). Transverse plane
  - c). Sagittal plane
2.
  - a). List two functions of air sacs in live poultry (2 marks)
  - b). State function(s) of the crop in the digestive system of the domestic fowl (2 marks)
3.
  - a). Briefly explain the function(s) of saliva in the ruminant animal (2 marks).
  - b). List the components of the large intestine (2 marks).
4. List one general difference between avian species and mammals with respect to the following body systems:
  - a). Urinary system (1 mark)
  - b). Male reproductive system (1 mark)
  - c). Lymphatic system (1 mark)
  - d). Cardiovascular system (1 mark)
5. State the functions of the following cell organelles (4 marks):
  - a). Smooth Endoplasmic Reticulum
  - b). Golgi apparatus
  - c). Ribosomes
  - d). Lysosomes
6.
  - a). List 3 functions of mammalian uterus (3 marks).
  - b). State the function of the epididymis (2 marks)
7. Give the dental formulae of the following animals (3 marks).
  - i). Sheep
  - ii). Cow
  - iii). Pig
8. State any 4 functions of skeletal system of animals (4 marks)
9.
  - a). Name the bones of the vertebral column of a cow (3 marks).
  - b). Name bones of hind limb of a cow (3 marks).
10. State the function of the following in blood circulation (3 marks).
  - a). Capillaries
  - b). Veins
  - c). Arteries

**SECTION B**

**LONG ESSAY QUESTIONS (LEQ,s) - 30 MARKS.**

**INSTRUCTIONS:** Answer any Two (2) Questions from this Section.

11.
  - a). Discuss the functions of urinary system in animals (6 Marks).
  - b). Name and describe the 3 basic physiological processes in urine formation (9 marks).
12. Describe the anatomy and function of the female reproductive system of poultry (15 marks).
13.
  - a). Briefly describe the anatomy and function of a bird's stomach (5 marks).
  - b). Describe in detail the anatomy and function of a ruminant's stomach (10 marks).
14.
  - a). Describe the process of hemostasis (9 marks).
  - b). Write short notes on the transportation of oxygen and carbondioxide in blood (6 marks).