



# **MAASAI MARA UNIVERSITY**

**REGULAR UNIVERSITY EXAMINATIONS  
2022/2023 ACADEMIC YEAR  
FIRST-YEAR SECOND SEMESTER**

**SCHOOL OF NATURAL RESOURCES, TOURISM  
AND HOSPITALITY**

**BACHELOR OF SCIENCE IN ANIMAL HEALTH  
AND PRODUCTION**

**COURSE CODE: AHP 1205-1**

**COURSE TITLE: Animal Physiology II**

**DATE:**

**TIME: 3HRS**

**INSTRUCTIONS TO CANDIDATES**

Answer **ALL** questions

*This paper consists of 3 printed pages. Please turn over*

Answer all questions

**ANIMAL PHYSIOLOGY- [120 Marks]**

1. Blood clotting is an important mechanism in prevention of loss of blood in animals. Describe the process under the following;
  - I. What component of blood is responsible for blood clotting (1 mk)
  - II. With an aid of a simple diagram describe the process of clot formation (9 mks)
  - III. State two clotting disorders (2 mks)
  - IV. Name four anticoagulants used in blood collection (4 mks)
  - V. State four haematopoietic tissues (4 mks)
  
2. Describe ruminant digestion under the following sub-headings;
  - a. Name the three types of salivary glands (3 mks)
  - b. Draw a well labeled diagram of a ruminant stomach (6 mks)
  - c. State three fatty acids that result from fermentation in the rumen (3 mks)
  - d. Describe digestion in the small intestine (6 mks)
  - e. Name two vitamins produced by bacteria in the large intestines (2 mks)
  
3. a. State the source and functions of the following; (9 mks)
  - i. Follicle stimulating hormone
  - ii. Luteinizing hormone
  - iii. Progesterone

b. Describe the following processes (6 mks)

- i. Fertilization
- ii. Implantation

c. State five signs of heat (5 mks)

4. Describe kidney nephron under the following sub-headings;

a. Draw and label the different parts of the kidney nephron (12 mks).

b. State role of each part in the above (8 mks).

5. Describe the stages of parturition in a cow (20 mks).

6. Describe musculoskeletal system under the following sub-heading;

- I. Differentiate the functions of calcitonin and parathyroid hormones. (4 mks)
- II. Differentiate the functions of osteoblasts and osteoclasts (4 mks)
- III. State steps in bone fracture healing (4 mks)
- IV. State the different types of muscle tissue and where they are found (6 mks)
- V. State the two types of marrow (2 mks)

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