

#### **MAASAI MARA UNIVERSITY**

# REGULAR UNIVERSITY EXAMINATIONS 2022/2023 ACADEMIC YEAR FIRST YEAR FIRST SEMESTER

## SCHOOL OF NATURAL RESOURCES, TOURISM AND HOSPITALITY

### BACHELOR OF SCIENCE IN ANIMAL HEALTH AND PRODUCTION

COURSE CODE: AHP 2107-1
COURSE TITLE: PASTURES, FODDER PRODUCTION
AND CONSERVATION

**DATE: 8<sup>TH</sup> DECEMBER, 2022 TIME: 0830-1130** 

**INSTRUCTIONS TO CANDIDATES** 

Answer **ALL** questions

This paper consists of 3 printed pages. Please turn over

#### PASTURES, FODDER PRODUCTION AND CONSERVATION [120 Marks]

- a) Define the following terms as used in animal nutrition and feeding (6mks)
  - i. Pasture
  - ii. Fodder
  - iii. Leys
  - b) Outline fodder classification giving relevant examples under each category (14mks)
- **2** a) Explain the main factors that influence the nutritive value of pastures (10 marks)
  - b) List three (3) grasses and two (2) leguminous plants used as fodder in Kenya and state one advantage (1) for each of the crops (10mks)
- a) Define pasture management (2mks)
  - b) Describe four (4) pasture management strategies and how they improve pasture quality (8mks)
  - c) Growing pastures could be an effective and an economical way of conserving the soil. Describe the ways in which pastures helps in soil enrichments and conservation (10mks)
- **4** a) List the advantages and disadvantages of fodder crops (6mks)
  - b) Describe the two major methods of fodder cultivation (6mks)
  - c) Describe the limitations to the use of fodder in Kenya (8mks)
- a) List two method of forage conservation commonly used in Kenya (2 marks)
  - b) List and give the names of the phases involved in silage making (8 marks)
  - c) Explain 5 losses that may be experienced during silage making (10 marks)
- a) Define the term 'anti quality compounds' as used in animal nutrition and give six (6) examples of anti-quality compounds in feeds of plant origin such as pastures and fodder. (8 mks)
  - b) To reduce the limitations of low-quality plant residues as a fodder resource, such feed can be subjected to various forms of treatment. Under each of the treatment categories below, mention and discuss the treatment methods that can be carried out.
    - i. Physical treatment. (6 marks)
    - ii. Chemical treatment. (4 marks)
    - iii. Biological treatment (2 marks)