60

DAG 070

University of choice

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)
SCHOOL OF AGRICULTURE, VETERINARY SCIENCES AND TECHNOLOGY (SAVET)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS
THIRD YEAR FIRST SEMESTER 2023/2024 ACADEMIC YEAR

MAIN EXAM
OF
DIPLOMA IN GENERAL AGRICULTURE

COURSE CODE: DAG 070

COURSE TITLE: FORAGE PRODUCTION AND CONSERVATION

DATE: 5.12.23 **TIME: 8-10AM**

INSTRUCTIONS TO CANDIDATES

This paper is divided into two sections, **A and B**. Answer ALL Questions in SECTION A and any Two in SECTION B

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over

SECTION A: ANSWER ALL QUESTIONS (40 MARKS)

Q1. Describe **FOUR** key characteristics used in identifying forage types. Provide examples for each type.

(4mks)

Q2. Explain **FOUR** significance of forage classification in livestock management practices Give advantages of grass-legume pasture over pure grass pasture **(4mks)**

Q3 Enumerate and explain **FIVE** soil conservation methods applicable to pasturelands Briefly explain **FIVE** Pre-cultivation and activities in pasture production **(5mks)**

Q4. Briefly describe Boma Rhodes in terms of the type of roots, stem growth habit, type of leaves and inflorescence

(4mks)

Q5. Discuss **THREE** effects of late defoliation fodder **(6mks)**

Q6. State FOUR reasons why grazing is important in the management of perennial ley pastures and fodder crops **(4mks)**

Q7. List TWO ley pasture and TWO forage legumes recommended for production in Arid and Semi-Arid (ASALs) regions of Kenya

(4mks)

Q8. Discuss in details FIVE ways through which climate change is likely to affect forage quality and quantity produced per unit area. **(5mks)**

Q9. Define rotational grazing and its advantages in pasture management **(4MKS)**

Q10. Explain FOUR importance of forages and fodder in animal nutrition and agricultural sustainability.

(2mks)

Q11. Differentiate between forage and fodder crops, highlighting their specific uses in agriculture. **(2mks)**

Q12. List and discuss **FOUR** key factors influencing the productivity and quality of forages and fodder. **(2MKS)**

SECTION B: ANSWER ANY TWO QUESTIONS

Q13. a) Define the critical periods of fodder scarcity and explain their impact on livestock management Define hydroponic farming **(10MKS)**

b) Elaborate on methods to increase biomass in forage production systems **(5mks)**

Q14. Outline the characteristics of a good fodder crop and explain why these traits are essential for livestock farming. **(15mks)**

Q15 Detail the process of conserving fodder using silage and haymaking, highlighting their benefits and differences. Discuss Silage making using green maze from harvesting to feeding

(15mks)

Q16. Explain the dangers of toxicity due to chemicals and poisonous plants in forage, and how to prevent these risks in livestock management **(15mks)**

Q 17. Discuss the methods and challenges in establishing *Pennisetum purpurum (grass)* and *Medicago sativa* (legume) in rangelands for sustainable forage production. **(15mks)**