# WOMEN'S UNIVERSITY IN AFRICA

*Addressing gender disparity and fostering equity in University Education*

**FACULTY OF AGRICULTURAL SCIENCES**

**MSc. DEGREE IN LIVESTOCK SCIENCE AND MEAT TECHNOLOGY**

**MAIN PAPER**

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| **MSc:** | **ADVANCED RANGELAND ECOLOGY AND PASTURE MANAGEMENT (MLMT121)** |
| **INTAKE:** | **FIRST YEAR SECOND SEMESTER** |
| **DATE:** | **TIME: 3 HOURS** |

**INSTRUCTIONS TO CANDIDATES**

**Answer any four questions. Each question carries 25 marks.**

**Question 1**

a. Define the following terms:
   i) Ecosystem stability. (2)
   ii) Biogeochemical cycling. (2)
   iii) Pasture. (2)
   iv) Species richness. (2)
   v) Rangeland rehabilitation . (2)
   vi) Global warming. (2)

b. Using examples, outline the importance of hydroponic fodder production. (6)

c. Describe the steps in veld management planning. (7)

**Question 2**

Explore the role of planted pastures in Zimbabwe, with respect to climate change. (25)

**Question 3**

a. Describe the vital ecosystem attributes related to ecosystem function. (5)
b. Outline the objectives of prescribed burning in rangeland management. (10)
c. Explore the merits and demerits of the continuous grazing management system. (10)

**Question 4**

Discuss defense mechanisms utilised by plants against herbivory. (25)

**Question 5**

Examine the importance of remote sensing techniques in rangeland evaluation, giving examples. (25)

**Question 6**

a. Outline the characteristics of a ley pasture. (5)
b. Examine the potential contribution of rangeland grazing systems to greenhouse gas emissions. (10)
c. Explore possible ways of ameliorating degraded rangelands. (10)

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**THE END**