



# UNIVERSITY OF EMBU

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2016/2017 ACADEMIC YEAR

SECOND SEMESTER EXAMINATION

SECOND YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF  
SCIENCE IN AGRICULTURE AND BACHELOR OF SCIENCE IN RANGE  
MANAGEMENT

ACS 207: FORAGE SCIENCE AND PASTURES

DATE: APRIL 7, 2017

TIME: 11:00AM-1:00PM

INSTRUCTIONS:

Answer Question ONE and ANY other TWO Questions

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## QUESTION ONE

a) Define the following terms:

- |                          |           |
|--------------------------|-----------|
| i. Pasture management    | [1 Marks] |
| ii. Warm season grasses  | [1 Marks] |
| iii. Forage conservation | [1 Marks] |
| iv. Crop residues        | [1 Marks] |

b) Differentiate between the following:

- |                       |           |
|-----------------------|-----------|
| i. Forages and fodder | [3 Marks] |
| ii. Hay and silage    | [3 Marks] |

c) Outline the guidelines for establishing new pasture. [3 Marks]

d) List any three factors that encourage weed management in pastures. [3Marks]

e) State and explain the kind of grazing management that you would employ to ensure sustainable pasture production. [4 Marks]

f) Give four plant characteristics that make *Brachiaria* type of grasses superior forage to the Rhodes (*Chloris gayana*) grass. [3 Marks]

g) List any four methods of legume seed treatment done prior to planting. [4 Marks]

h) Pasture yield is an important parameter to ranchers. Outline the steps used to determine the pasture yield. [3 Marks]

## **QUESTION TWO**

- a) Discuss three pasture management strategies used to exploit grassland biodiversity [10 Marks]
- b) You have been appointed as a livestock extension specialist in a County and you want to prepare a bulletin for silage making for your smallholder dairy farmers. Give key messages you would include in the bulletin. [10 Marks]

## **QUESTION THREE**

- a) Discuss the economic importance of grasslands to man. [5 Marks]
- b) Controlled grazing in pastures is important for their longevity. Enumerate and explain the points that need to be considered. [15 Marks]

## **QUESTION FOUR**

For natural and sown pastures, briefly discuss nine (9) characteristics a forage-livestock producer prefers in a superior forage/fodder [20 Marks]

## **QUESTION FIVE**

- a) Give five (5) main livestock production systems for grazing methods used in East Africa. [5 Marks]
- b) For each of the above method, mention at least five (5) pasture/fodder grown by farmers for their livestock. [15 Marks]

**END**