



2nd SEM. 2013/2014

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UNIVERSITY OF SWAZILAND
SUPPLEMENTARY EXAMINATION PAPER

PROGRAMME: B.Sc. ANIMAL SCIENCE YEAR 2
B.Sc. ANIMAL SCIENCE (DAIRY OPTION) YEAR 2

TITLE OF PAPER: RANGE MANAGEMENT

COURSE CODE: AS 205

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER FOUR (4) QUESTIONS

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CHIEF INVIGILATOR

QUESTION 1

Discuss five factors that influence optimum stocking rate. (25 Marks)

QUESTION 2

(a) Outline five uses of fencing in a ranching operation. (5 Marks)

(b) The Lowveld of Swaziland is well suited to ranching; describe fully this range type (leave out discussion on physical characteristics and other activities). (20 Marks)

QUESTION 3

(b) Discuss other uses of rangelands under the following headlines:

(i) Crop production and plant products. (5 Marks)

(ii) Recreation and tourism. (12 Marks)

(iii) Site stabilisation. (8 Marks)

QUESTION 4

“The first consideration of pasture production must be to preserve and if possible increase the growth of primary producers”. Discuss this statement and outline some of its practical implications. (25 Marks)

QUESTION 5

(a) Define rangeland condition and rangeland monitoring. (5 Marks)

(b) Rangeland condition is important in determining carrying capacity.

Suppose you go out and do range monitoring by species cover; you collect the following data:

Actual cover (%)

Thatch grass (Increaser I) 23; Guinea grass (Decreaser) 15; *Eragrostis plana* (Increaser I) 15; *Eragrostis curvula* (Decreaser) 15; Ratstail dropseed (Increaser I) 10, Bitter apple (Invader II) 5 and Milkweed (Invader II) 5.

Calculate rangeland condition based on cover of these species. (20 Marks)

Use the given format below; the second column gives you information on some of the species, that is, how much of it is allowed in climax condition.

Species	Allowed in climax	Relative cover on site	Usable percent
Thatch grass	20		
Guinea grass	100		
<i>Eragrostis plana</i>	5		
<i>Eragrostis curvula</i>	100		
Ratstail dropseed	10		
Bitter apple			
Milkweed			
Range condition is _____			=