



**UNIVERSITY OF ESWATINI**

**1<sup>st</sup> SEM. 2019/2020**

**FINAL EXAMINATION PAPER**

**PROGRAMMES: B.Sc. ANIMAL SCIENCE YEAR 3 AND B.Sc. ANIMAL SCIENCE  
(DAIRY OPTION) YEAR 3**

**COURSE CODE: ASC301**

**TITLE OF PAPER: PASTURE AND FODDER MANAGEMENT**

**TIME ALLOWED: TWO (2) HOURS**

**INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS**

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CHIEF INVIGILATOR**

**QUESTION 1**

Highlight the significance of sown pastures under the headlines:

- (a) Provision of more feed. (11 Marks)  
 (b) Reliable feed supply. (14 Marks)

**QUESTION 2**

Seed quality affects the extent of pasture establishment. Discuss seed quality under the headline "Freedom from contamination".

(25 Marks)

**QUESTION 3**

Discuss fully the management of newly established pastures.

(25 Marks)

**QUESTION 4**

Describe the characteristics of a properly prepared seedbed.

(25 Marks)

**QUESTION 5**

- (a) State **five (5)** factors that influence optimum stocking rate. (10 Marks)

- (b) Forage conservation is one way of ensuring feed availability throughout the year.

Assume you are in charge of a dairy farm at Luyengo. The farm has 115 cows which require supplementary feeding in the form of silage year-long.

Given that the cows are fed at a rate of 6 kg silage (on dry matter basis) per head per day, calculate:

- (i) total silage needs during the year. (3 Marks)

- (ii) total area required for silage production if the yield of maize is 20 tonnes/ha fresh material, with 24% dry matter. (3 Marks)

- (iii) the number of pit silos required assuming each silo is 5.5 m long, 3 m wide and 1.5 m deep, and each cubic metre can take 120 kg of silage on dry matter basis. (6 Marks)

(iv) Adjust the values for total silage needs during the year, area required to produce the maize and the number of pit silos assuming a 15% loss in silage production.

(3 Marks)