UNIVERSITY OF SWAZILAND

2nd SEM. 2012/2013

FINAL EXAMINATION PAPER

PROGRAMME: B.Sc. ANIMAL SCIENCE III

B. Sc. ANIMAL SCINCE-DAIRY III

B. Sc. AGRICULTURAL EDUCATION III

COURSE CODE: AS 304

TITLE OF PAPER: NUTRITION, FEEDS AND FEEDING

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER QUESTION 1 AND ANY THREE (3) OTHER QUESTIONS

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QUESTION 1 [COMPULSORY]

(a) Briefly describe the basic information required in order to formulate a ration for any given animal. **[5 Marks]**

(b) Using an example, outline the steps that are followed in the construction of a Pearson Square to blend two feedstuffs with different nutrient contents. **[10 Marks]**

(c) A smallholder dairy farmer in Mpaka has available on the farm yellow maize grain with 87 % DM, 8 % CP, 10 MJ/kg ME and 86 % TDN, and marula seed cake with 90 % DM, 40 % CP, 12 MJ/kg ME and 82 % TDN.

      (i) Calculate the composition of the required mixture of the two ingredients to formulate a 17 % CP calf grower meal. **[5 Marks]**

      (ii) Calculate the ME and TDN content of the calf grower meal. **[5 Marks]**

QUESTION 2

Briefly, elaborate on the following:

      (a) Laminitis   **[10 Marks]**

      (b) Displaced abomasum   **[10 Marks]**

      (c) Acidosis   **[5 Marks]**

QUESTION 3

Write short notes on the following:

      (a) Dietary protein partioning in pigs.   **[10 Marks]**

      (b) Fat soluble vitamins   **[15 Marks]**

QUESTION 4

Describe the anti-nutritive factors commonly found in plant feed resources. **[25 Marks]**

QUESTION 5

The control of feed intake is multi-factorial. Briefly explain the factors that affect feed intake in farm animals. **[25 Marks]**