



**UNIVERSITY OF SWAZILAND**

**1<sup>st</sup> SEM. 2017/2018**

**RE-SIT EXAMINATION PAPER**

**PROGRAMME: B.Sc. ANIMAL SCIENCE YEAR 3, B.Sc. ANIMAL SCIENCE (DAIRY) YEAR 3, AND B.Sc. AGRIC. EDUCATION YEAR 3**

**COURSE CODE: ASC 303**

**TITLE OF PAPER: NUTRITION, FEEDS AND FEEDING**

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

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

**DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN GRANTED BY THE CHIEF INVIGILATOR**

**QUESTION 1**

Discuss minerals as essential nutrients for farm animals.

**(25 Marks)**

**QUESTION 2**

Discuss the use of digestibility trials, *in sacco* degradability and laboratory methods as techniques for measuring the digestibility of feeds for livestock

**(25 Marks)**

**QUESTION 3**

Discuss, including illustrations, the anatomical and physiological differences and similarities between fore-gut fermenters and hind-gut fermenters. Further explain how hind-gut fermenters process feedstuffs of high fibre content.

**(25 Marks)**

**QUESTION 4**

Define feed intake and factors affecting it in ruminants.

**(25 Marks)**

**QUESTION 5**

Discuss the utilization of fermentation stimulants and inhibitors in silage making.

**(25 Marks)**