



UNIVERSITY EXAMINATIONS 2013/2014 ACADEMIC YEAR

**1ST YEARS EXAMINATION FOR THE MASTER OF SCIENCE IN
LIVESTOCK SCIENCE**

COURSE CODE/ TITLE: KAN 532: NON RUMINANT NUTRITION

END OF SEMESTER I

DURATION: 3 HRS

DAY/TIME: FRIDAY 8.00AM – 11.00AM

DATE: 20.12.2013

INSTRUCTIONS:

Answer ALL questions in Section A and any TWO in section B

SECTION A (30marks)

Question One

- Discuss why water is considered one of the most important nutrients required by animals? **(10marks)**
- Discuss why poultry and swine producers should or should not be concerned about quality of feeds in Kenya. **(10marks)**
- Discuss some of the possible causes of “poor” feed quality. **(10marks)**

SECTION B

Question Two

- The graph below show the effect of dietary protein supply on growth rate of pigs fed basal diets of sugar cane juice or cassava root meal (source: Phuc et al., 1994; Ospina et al., 1994). Discuss the relationship between the amount (and therefore cost) of the supplement vis a vis the level of animal performance. The value of live weight – Kshs. 1.00/kg and the cost of soya bean = Ksh 400/tone. **(5marks)**

- b) Explain why Near Infrared Reflectance Spectroscopy (NIRS) has gained such widespread use and outline the main problems with the technique. **(10marks)**

Question Three

High ambient temperatures can be devastating to commercial broiler production; coupled with high humidity they can have an even more harmful effect. Discuss some methods poultry producer can use to partially alleviate some of the detrimental effects of heat stress on broiler performance. **(15marks)**

Question Four

Feed safety and its regulation are major international concern. Discuss potential hazards associated with feed in the poultry industry. **(15marks)**