



## **NATIONAL OPEN UNIVERSITY OF NIGERIA**

**University Village, Nnamdi Azikwe Express Way, Plot 91,  
Cadastral Zone, Jabi,  
Jabi, Abuja**

**Faculty of Agricultural Sciences  
FIRST SEMESTER EXAMINATION: June/July**

**AEM 722 RUMINANT ANIMALS (2 UNITS).**

**JUNE EXAMINATION 2017**

**INSTRUCTIONS: Answer any 4 (four) questions. All Questions Carry Equal Marks**

**TIME ALLOWED: 2 hours.**

1. Write a short note on digestion in the young ruminant animal (10 Marks)
- 1b. Discuss in details the process of carbohydrate and protein digestion in ruminants (15 Marks)
- 2 . Discuss fully the advantages of small ruminants in the Nigerian economy (25 Marks)
- 3a. List the major species of the wild sheep (4 Marks)
- 3b. What is steaming up? State the relevance of this management practice in ruminant production (11 Marks)
- 3c. Define the following terms:
  - i. Bull    ii. Buck    iii. Ewe    iv. Veal    v. Mutton (10 Marks)
- 4a. Explain what you understand by oestrus (2 Marks)
- 4b. Indicate the signs a female animal exhibit when on oestrus (6 Marks)
- 4b. Discuss in details the advantages of providing housing for ruminants (17 marks)

5a. List the essential features of a sheep and goat handling pen (5Marks)

5b. Discuss fully the operations that can be carried out in 5a above (20 Marks)

6a Explain how you will manage a calf from birth to weaning. (20 marks)

6b. List 5 breeds of cattle found in Nigeria. (5 marks)