



**NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS
SCHOOL OF AGRICULTURAL SCIENCES
SEPTEMBER/OCTOBER 2015 EXAMINATION**

COURSE CODE: ANP 302

COURSE TITLE: RUMINANT ANIMAL PRODUCTION

TIME ALLOWED: 3HOURS

**INSTRUCTIONS: ANSWER FIVE (5) QUESTIONS ONLY. ALL
QUESTIONS CARRY EQUAL MARKS**

1a. Outline the economic reasons for keeping ruminant animals in Nigeria (10 marks)

1b. Draw and label the stomach of a mature ruminant animal. (10marks)

2. Describe in details the process of digestion in a cow from the mouth to the anus (20 Marks)

3. Describe in details the following breeds of large and small ruminants

a. White Fulani b. Muturu c. Uda or Fulani Sheep d. Red
Sokoto Goat (5 marks)

4. Write short notes on the following:

a. Natural Mating b. Controlled mating c. Estrus
synchronisation d. Artificial insemination (5 Marks)

5a. Discuss the housing requirement of ruminants (10 Marks)

5b. Describe how you will manage a cow during calving (10 Marks)

6. Differentiate between:

6a. Dry roughages and succulent roughages (10 marks)

6b. Hay and silage (10 marks)

7a. List the symptoms of PPR in sheep and goats. (5Marks)

7b. Differentiate between foot rot and foot and mouth disease. (10 marks)

7c. State the economic importance of disease in ruminant production (5 Marks)