



NATIONAL OPEN UNIVERSITY OF NIGERIA

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

Faculty of Agricultural Sciences

FIRST SEMESTER EXAMINATION: June/July

Course Code: ANP 302 (2cu)

Course Title: Ruminant Animal Production

Instruction: Answer Any 4 questions out of the 5 below.

Time Allowed: 2 hours

1. Define ruminant animals (10 Marks)
- b. Sketch and label properly a diagram of the cow (15 Marks)
- 2a. Elaborate on any differences between Ruminant and Non - Ruminant Animals (5 Marks)
- b. Identify any 10 economic importance of keeping Ruminant Animals (Any correct point is 2 Marks, 10 = 20 Marks)
- 3a. State the functions of each of the four compartment stomach in the alimentary canal of a ruminant. (2 marks for each = 8 Marks)
- b. Discuss any 4 breeds of cattle in Nigeria, starting with the most populous (2 Marks for each = 8 Marks)
- c. List the distinguishing features between Yankasa and Balami. Any 3 @ 3 Marks = 9 Marks
- 4a. State any 9 measures for effective management of breeding bulls (1 Mark each = 9 Marks)

- b. The same principles for housing applies to all ruminants
enumerate any 6 (1 Mark each 6)
- c. Elaborate on some 5 management practices in ruminant
production. (Any 5 @ 2 Marks = 10 Marks).
- 5a. State the daily crude protein and energy need of a dairy
cattle. (5 Marks)
- b. Define disease. (2 Marks)
- c. Define and elaborate on the symptoms of PPR in sheep and
goats. (2 Marks)
- d. List any 5 general diseases of Ruminants. (1 Mark each = 5
Marks)
- e. List any 6 internal and 5 external parasites of ruminants. (1 Mark each
= 11 Marks)