



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
*University Village, Nnamdi Azikiwe Expressway, Plot 91, Cadastral Zone, Jabi, Abuja*  
**Faculty of Agricultural Sciences**  
**September, 2020\_1 Examination**

**Course Title: Ruminant Animals Production**

**Course Code: ANP 509**

**Credit Unit: 2**

**Total Score: 70 Marks**

**Time Allowed: 2 Hours**

**INSTRUCTION:**

**Answer Compulsory question 1 (25 marks) and any 3 questions ( 15 marks each).**

Question One

- a)Mention two( 2) difference between Ruminants and other Animals 4 marks
- b)Give different terms for Parturition in cattle, sheep and goats 3 marks
- c)explain digestion in the Hindgut 3 marks
- d)describe the Muturu cattle breed 5marks
- e)Outline five (5) importance of housing in sheep/goat production. 10 marks

Question Two

- a)Describe the features of the Balami 5 marks
- b)highlight the Feeding of adult sheep and goat 3 marks
- c)Describe Mastitic disease, state the Signs, Prevention and Control 7 marks

Question Three

- a)Mention three attributes each of
  - i. Dairy cattle
  - ii. Beef cattle
  - iii. Draught cattle9 marks
- b)Name one (1) beef and two (2)dairy breeds of cattle 3 marks

c) Why should a cow be allowed a dry period 3 marks

#### Question Four

a) State one (1) advantage and three (3) disadvantages of hand milking 4 marks

b) Outline three (3) advantages and two (2) disadvantages of machine milking 5 marks

c) Highlight three (3) reasons for Bad Traits in Milking Cows 3 marks

d) Mention three (3) characteristics of roughages 3 marks

#### Question Five

a) Outline the identifying features of Maradi (Red Sokoto) Goat 7 marks

b) Write short note on trypanosomiasis in cattle 5 marks

c) Mention six (6) important features of a typical sheep/goat handling unit. 3 marks

#### Question Six

a) Discuss five (5) causes of diseases in cattle 15 marks