



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
*University Village, Nnamdi Azikiwe Expressway, Plot 91, Cadastral Zone, Jabi, Abuja*  
**Faculty of Agricultural Sciences**  
*POP Questions 2021\_2*<sub>7836</sub>

**Course Title: Ruminant Animal Production**

**Course Code: ANP 509**

**Credit Unit: 2**

**Total Score: 70 Marks**

**Time Allowed: 2 Hours**

**INSTRUCTION:**

**Answer: Compulsory question 1 (30 marks) and any 2 questions (20 marks each).**

**Question one**

- Identify two (2) differences between ruminants and other animals (4 marks)
- Discuss five (5) advantages of small ruminants over other ruminants (15 marks)
- State another name for Parturition in cattle, sheep and goats (3 marks)
- How would you manage a calf from birth to weaning? (8 marks)

**Question two**

- Discuss how carbohydrates are digested in ruminants (8 marks)
- Highlight three (3) benefits of ruminant digestion process. (3 marks)
- Explain to a potential farmer nine (9) distinguishing features of the White Fulani (Bunaji) cattle breed (9 marks)

**Question three**

- Mr Yakubu wants to prevent his animals from disease; explain to him five (5) general measures of disease prevention (5 marks)
- How would you convince a livestock farmer of the importance of sheep/goat housing unit? (15 marks)

**Question four**

- Mr Baba met you as an animal science student and wants you to explain to him causes of disease in his cattle; elucidate five (5) possible causes of diseases in his cattle (15 marks)
- How would you identify signs of parturition in cattle? (5 marks)