



National Open University of Nigeria
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi, Abuja
Faculty of Agricultural Sciences
October/November, 2016

Course code: ANP 302

Course Title: RUMINANT ANIMAL PRODUCTION

TIME: 3hrs

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

- 1a. Highlight the main differences between ruminant and non-ruminant animals (8 Marks)
- 1b. Name the compartments in a ruminant stomach. (2marks)
- 1c. Outline the economic reasons for keeping ruminant animals (10 marks)

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. Sokoto Gudali
 - c. Uda or Fulani Sheep
 - d. Sokoto Sheep (5 marks)
4. Write short notes on the following:
 - a. Natural Mating
 - b. Controlled mating
 - c. Estrus synchronisation
 - d. Artificial insemination (5 Marks)

- 5a. Briefly discuss the housing requirement of cattle (10 Marks)
- 5b. Describe how you will manage a cow during calving (10 Marks)
6. Differentiate between:
- a. Dry roughages and Succulent roughages (10 marks)
 - b. 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)