



## **NATIONAL OPEN UNIVERSITY OF NIGERIA**

**FACULTY OF AGRICULTURAL SCIENCES**

**Department of Animal Science and Fisheries**

**POP 2021\_1**

### **AEM 722 Ruminant Animals (2 Units) A QUESTIONS**

**INSRCTIONS: Answer question one (compulsory) and any other 2 questions. Please note that question one carries 30 marks all others 20 marks each.**

**Time Allowed: 2hours.**

1a. White examples differentiate between *Bos taurus* and *Bos indicus* **4 marks**

1b. What do you understand by the term Breed in livestock production **4 marks**

1c. Mr Audu just started a cattle ranch and discovered that one of his cows is about to calve, as an animal scientist educate him on all he needs to do to ensure safe parturition on his farm **12 marks**

1d. Briefly discuss the characteristics of roughages **10 marks**

2a. Write short notes on two (2) of the following protein sources **8 marks**

- I. Soyabeans Meal
- II. Groundnut cake
- III. Cotton Seed Cake
- IV. Palm kernel cake

2b What is a ration in animal feeding **2 marks**

2c. Advance reasons why ruminants are capable of utilizing non-protein nitrogen. **10 marks**

3. Mr. Chinedo reported that his livestock appears sick, what in your understanding could be the possible courses of disease on to his livestock **20 marks**

4. Aboki has a herd of young calves, advise him on how to manage these young calves for optimum growth and productivity **20 marks**