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 307
COURSE TITLE: ELEMENTARY TOPICS IN ANIMAL BREEDING (2 Units)
TIME: 2HOURS

ANSWER 4 QUESTIONS (ALL QUESTION CARRIES EQUAL MARKS)

1. **What is breeding** and state the aim of breeding?

1b. Define the following terms in animal breeding:

Homozygous; Heterozygous; Recessive; Phenotype;. Genotype; and Hybrid

1c. Briefly explain the concept of animal breeding

2a. Bakewell was a proponent of 3 concepts lists them and what was the limitation of his breeding programme?

2b. Most of the traits of economic importance in farm animals are quantitative in nature, what characteristics do they possessed?

2c. Briefly describe the genetic change that can be attained in breeding.

3a. Define science of animal breeding and write a short note on the historical background of animal breeding.
3b. Discuss the principle of animal breeding for increase productivity. .

4a. List four (4) challenges in breeding animals for disease resistance
4b. Philosophers put different ideas forward at different times about the mode of transmission of character from one generation to another discuss five (5) of this philosophies.

4c State two (2) reasons that made Mendel's research work unique compare to the other early theories and the implication of his work (

5a. State the differences between Ovist and Spermist theory of heredity (10 marks)

5b. Name and explain the two laws of Mendel (15 marks)

6a. What is Punnett squares and how can the square be used to predict the genetic variation.

6b. List three application of principle of genetics in agriculture.

6c. Briefly explain SRY system of sex determination