



# NATIONAL OPEN UNIVERSITY OF NIGERIA

## Faculty of Agricultural Sciences

### Department of Animal Science and Fisheries

#### POP Examination 2021\_2<sup>788</sup>

Course: ANP507: Animal Breeding And Livestock Improvement  
Credit Unit: 2  
Time Allowed: 2 hours.

**INSTRUCTIONS: Answer question one (Compulsory: 25 Marks) and any other THREE (15 marks each)**

#### QUESTION ONE

- i. Can you develop a performance testing procedure for Cattle Breeding? 10 marks
- ii. Outline the 5 set back of Progeny Testing 5 marks
- iii. Explain briefly the method used for the detection of a specific DNA sequence in DNA samples. 10 marks

#### QUESTION TWO

Write short note on the following

- i. Process of Quantitative Test Loci (QTL) mapping 5 marks
- ii. Mode of inheritance genetic variability 10 marks

#### QUESTION THREE

- i. State in your own words the meaning of genetic counseling. 3 marks
- ii. Outline the purpose of employing a genetic counselor in genetic clinical examination 4 marks
- iii. Can you explain the two techniques used in the process of genetic testing? 8 marks

#### QUESTION FOUR

- i. Can you distinguish between prenatal testing and carrier screening in genetic screening tests 6 marks
- ii. Outline the relevance of pre-implantation and diagnostic testing in genetic screening tests 9 marks

## QUESTION FIVE

Illustrate with the aid of a well-labeled diagram DNA fingerprint

15 marks

## QUESTION SIX

- i. Write in your own word the meaning of the terms Microsatellites and Allele in relation to genetic markers 5marks
- ii. ii. Outline the five (5) main types of molecular markers 5 marks
- iii. List two cases under which records of relatives must be used? 2 marks
- iv. iii. Enumerate the family selection systems for Animal breeding? 3marks