



NATIONAL OPEN UNIVESITY OF NIGERIA

Faculty of Agricultural Sciences

Department of Animal Science and Fisheries

POP Examination 2021_2⁷⁶⁸

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