



NATIONAL OPEN UNIVESITY OF NIGERIA

Faculty of Agricultural Sciences

Department of Animal Science and Fisheries

POP Examination, 2021_1

Course: ANP504: Biotechnology In Animal Production

Credit Unit: 2

Time Allowed: 2 hours.

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

Marking Guide

QUESTION ONE

- i. What is genotyping of individual in a population? 5 marks
- ii. Highlight the current methods of examining the individual's DNA sequence. 5 marks
- iii. State the significance of Deoxyribonucleic acids genotyping? 5 marks
- iv. Can you brief outline 10 current uses of genetic tests for diagnosis and their associated what conditions. 10 marks

QUESTION TWO

- i. What is DNA testing? 3 marks
- ii. Can you write in your own words the usefulness of genetic testing? 12marks

QUESTION THREE

- i. Explain in your own words the impacts of environmental biotechnology to natural resources and the environment. 8 marks
- ii. Outline 8 most common reproductive applications that are integrated with biotechnology. 4 marks
- iii. List various things that genetic engineering had been used produced? 3marks

QUESTION FOUR

Write short notes of the following:

- i. In Vitro-Fertilization (IVF) and its advantages 11 marks
- ii. Nuclear transfer or embryo cloning 4 marks

QUESTION FIVE

- i. How can you convince rural animal farmer to adopt Artificial Insemination 10 marks
- ii. State the precaution he must observe in adopting Artificial Insemination 5 marks

QUESTION SIX

- i. Write in your own words the term bio-informatics 2 marks
- ii. Outline the significance of bio-informatics in understanding and interpreting biological data 5 marks
- iii. Show through the aid of a well-labeled diagram the processes involved in DNA fingerprinting 8 marks