



NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF AGRICULTURAL SCIENCES
DEPARTMENT OF ANIMAL SCIENCE AND FISHERIES
POP 2021_2

COURSE CODE: ANP 312

COURSE TITLE: Genetics and Breeding

CREDIT UNIT: 2 CU

TOTAL SCORE: 70 MARKS

TIME ALLOWED: 2 Hours

INSTRUCTIONS: ANSWER QUESTION 1 (30 MARKS) AND ANY OTHER TWO (20 MARKS EACH)

1. (a) The females of major tropical breeds of cattle have short heat period. What is the implication of this in executing an artificial insemination programme? (6 marks)
- (b) Using appropriate illustration, explain any two of the laws of inheritance. (14 marks)
- (c) What are the chemical components of the cell? (5 marks)
- (d) Give examples of ten inorganic salts found in cells (5 marks)
2. (a) Name and describe the types of RNA found in cells. (12 marks)
- (b) Give four examples of traits associated with inbreeding (8 marks)
3. (a) What is cytokinesis? (5 marks)
- (b) What are the major factors that militates against the use of artificial insemination technique in the tropics? (15 marks)
4. (a) What are the major limitations of clone selection method? (6 marks)
- (b) Give four examples of asexually propagated crops. (8 marks)
- (c) What is outbreeding? (6 marks)