



**NATIONAL OPEN UNIVERSITY OF NIGERIA  
FACULTY OF AGRICULTURAL SCIENCES  
DEPARTMENT OF CROP AND SOIL SCIENCE  
2025\_2 EXAMINATIONS**

---

***COURSE TITLE: AGRICULTURE AND BIO-RESOURCE MANAGEMENT (2 CU)***

***COURSE CODE: CRP 308***

***TOTAL SCORE: 70 MARKS***

***INSTRUCTION: Answer 3 questions in all***

***Question 1 is compulsory (30 marks) and any other TWO questions (20 marks each)***

***TIME ALLOWED: 2 ½ Hours***

- 1a. Describe migrational and mutational genetic vulnerability. (10 marks)
  - b. Explain the effects of genetic drift on genetic erosion. (10 marks)
  - c. Name standard places where germplasm can be properly preserved. (5 marks)
  - d. Mention five mandate crops of The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT). (5 marks)
- 
- 2a. What is genetic recombination? (5 marks)
  - b. What do you understand by genetic erosion? (5 marks)
  - c. Describe the features or indicators of biodiversity changes in species. (10 marks)
- 
- 3a. Identify and explain three causes of genetic erosion. (12 marks)
  - b. Define genetic diversity. List the importance of genetic diversity. (8 marks)
- 
- 4a. Discuss the application of genetic recombination in biotechnology and Medicine. (10 marks)
  - b. What is germplasm conservation? (10 marks)