

**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**University Village, NnamdiAzikwe Express Way**, **Plot 91, Cadastral Zone,Jabi,Abuja**

**FACULTY OF AGRICULTURAL SCIENCES**

**FIRST SEMESTER EXAMINATION: June/July**

**COURSE CODE: CRP 305**

**COURSE TITLE: CROP GENETICS AND BREEDING**

**INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS**

**QUESTIONS**

1a. Differentiate between **Gametogenesis and Fertilization**?

b. In a tabular form, differentiate between Mitosis and Meiosis

1c. State four (4) characteristics of gene

2. Explain the following terms:

i. Phenotype iv. Pure line

ii. Genotype v. Heterozygous

iii. Homozygous

3a. State five (5) differences between Qualitative and Quantitative traits

3b. Define the following terms:

1. Complete flowers
2. Perfect flowers
3. Imperfect flowers
4. Monoecious
5. Dioecious

3c. List three (3) features that encourage cross pollination and two (2) features that encourage self pollination

4a. What are Apomitic crops?

4b. Briefly explain the following terms:

1. Cleistogamy
2. Chasmogamy
3. Homogamy
4. Protandry
5. Protogeny

4c. Explain the term Incompatibility Systems

5a. Discuss extensively on male sterility