OLABISI ONABANJO UNIVERSITY, AGO –IWOYE
2004/2005 HARMATTAN SEMESTER EXAMINATION
DEPARTMENT OF PLANT SCIENCE AND APPLIED ZOOLOGY

PAPER: BIO 201 – GENETICS
INSTRUCTIONS: ANSWER ALL QUESTIONS IN THIS SECTION ($2^{1/2}$ Hrs)

1. The expressed trait in its heterozygous condition is known as Dominant while recessive is the hidden trait in its heterozygotic condition.
2. Genes located on the same chromosome are called Nuclear gene/linked genes.
3. Mendelian characters are called Qualitativegenes/character while non-Mendelian characters are referred to as Quantitative genes/character.
4. Heredity is a process in which definite structures are transmitted from parents to their progeny through their gametes.
5. The first progeny of a cross are known as first filial generation.
6. The basic laws of inheritance are monohybrid and Dihybrid.
7. The phenotypic ratios for monohybrid and dihybrid crosses are 3:1 and 9:3:3:1.
8. Gene interactions dictate the expressivity or penetrance of any given trait and the extent of variation.
9. A good example of co-dominant alleles is the ABO blood group.
10. The two types of characters that are based on their hereditability are Hereditable character and Non-hereditable character.
11. The inheritance in which the offsprings resemble their mother parents more than their father parents is known as Cytoplasmic inheritance.
12. Non-hereditable characters are Acquired characters.
13. Deletion is a loss of segment from a functional length of a chromosome.
14. For Translocation to occur, there should be two simultaneous breaks, one break each in the two non-homologous chromosomes.
15. In Complementary genes, the mendelian phenotypic ratio is altered from 9:3:3:1 to 9:7.