Name_____

Test Date _____ Period _____

Bio Ch 11:1-3 Genetics

Things to know

(35 Multiple Choice Questions)

Vocabulary to know

Alleles	Gametes	Incomplete dominance
Co-Dominance	Genetics	P Generation
Complete Dominance	Heredity	Polygenic traits
Dominant	Heterozygous	Probability
F1 Generation	Homozygous	Purebred (true-breeding)
F2 Generation	Hybrid	Recessive
		Traits

Concepts to Understand

1. Work of Mendel
    a. Why did he choose pea plants, what did he study?
    b. Law (or principle) of dominance
    c. Law of segregation
    d. Law of independent assortment
    e. Probability
2. Know how to complete Monohybrid (4 square) Punnett Square
    a. Know how to determine and list percentages of Genotypes
    b. Know how to determine and list percentages of Phenotypes
    c. Know what to expect (and why) with crosses between homozygous or heterozygous individuals
3. Define and describe the three types of Inheritance patterns
    a. Complete (Mendelian) Inheritance
    b. Incomplete dominance
    c. Co-Dominant inheritance
    d. Polygenic inheritance (as in skin color)
    e. Be able to predict the offspring given the parents genotype and the inheritance pattern.
    f. Be able to guess the inheritance pattern given the parents and offspring.
4. Di-hybrid crosses
    a. Show and explain how dihybrids illustrate the principle of independent assortment
    b. Be able to use the f.o.i.l. technique to determine the allele combinations during gamete formation
    c. Understand how to find the ratio of offspring produced;
    d. Be able to show genotype or phenotype combinations in several formats
        i. Ratio (for example 9:3:3:1)
        ii. Fraction (for example 3/16)
        iii. Percentages (for example 75%)