

# Genetics Quiz I Study Guide

*Part 1: Vocabulary-Define all of the following terms:*

1. Gene
2. Trait
3. Genotype
4. Phenotype
5. DNA
6. Dominant
7. Recessive
8. Allele
9. Chromosome
10. Heredity
11. Genetics
12. Heterozygous
13. Homozygous
14. Purebred
15. Hybrid
16. Heredity
17. RNA
18. Multiple Alleles
19. Incomplete Dominance
20. Co-dominance

***Part II***

21. Who is considered the “father” of genetics?
22. In order to see a recessive trait in an organism’s phenotype, what must be the organism’s genotype?
23. A plant with a dominant homozygous trait is crossed with a plant with a recessive homozygous version of that trait. What is the probability that the offspring will display the dominant trait in its phenotype?
24. An organism with TWO different alleles for a particular trait is considered to be \_\_\_\_\_ or \_\_\_\_\_.
25. Freckles=recessive. Cross a **heterozygous** parent with **NO** freckles with a parent with freckles. What is the probability that the offspring will have freckles?
26. In dogs, long tails are dominant over short tails. Cross a **heterozygous** tailed dog with a **homozygous recessive** dog. What is the probability that the dog will have a long tail?  
What is the probability that the dog will have a short tail?