

## Chapter 11- Introduction to Genetics

### Multiple Choice

Identify the letter of the choice that best completes the statement or answers the question.

- \_\_\_ 1. Gregor Mendel used pea plants to study
  - a. flowering.
  - b. gamete formation.
  - c. the inheritance of traits.
  - d. cross-pollination.
- \_\_\_ 2. Offspring that result from crosses between true-breeding parents with different traits
  - a. are true-breeding.
  - b. make up the F<sub>2</sub> generation.
  - c. make up the parental generation.
  - d. are called hybrids.
- \_\_\_ 3. The chemical factors that determine traits are called
  - a. alleles.
  - b. traits.
  - c. genes.
  - d. characters.
- \_\_\_ 4. Gregor Mendel concluded that traits are
  - a. not inherited by offspring.
  - b. inherited through the passing of factors from parents to offspring.
  - c. determined by dominant factors only.
  - d. determined by recessive factors only.
- \_\_\_ 5. When Gregor Mendel crossed a tall plant with a short plant, the F<sub>1</sub> plants inherited
  - a. an allele for tallness from each parent.
  - b. an allele for tallness from the tall parent and an allele for shortness from the short parent.
  - c. an allele for shortness from each parent.
  - d. an allele from only the tall parent.
- \_\_\_ 6. The principle of dominance states that
  - a. all alleles are dominant.
  - b. all alleles are recessive.
  - c. some alleles are dominant and others are recessive.
  - d. alleles are neither dominant nor recessive.
- \_\_\_ 7. When Gregor Mendel crossed true-breeding tall plants with true-breeding short plants, all the offspring were tall because
  - a. the allele for tall plants is recessive.
  - b. the allele for short plants is dominant.
  - c. the allele for tall plants is dominant.
  - d. they were true-breeding like their parents.
- \_\_\_ 8. If a pea plant has a recessive allele for green peas, it will produce
  - a. green peas if it also has a dominant allele for yellow peas.
  - b. both green peas and yellow peas if it also has a dominant allele for yellow peas.
  - c. green peas if it does not also have a dominant allele for yellow peas.
  - d. yellow peas if it does not also have a dominant allele for green peas.
- \_\_\_ 9. When you flip a coin, what is the probability that it will come up tails?
  - a. 1/2