Chapter 11 Answer Key

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**Matching:**

1. AC

2. C

3. AB

4. E

5. A

**Multiple Choice:**

6. B

7. D

8. B

9. B

**Fill in the Blank:**

10. Independent assortment, independently, Independent assortment

11. Multiple alleles

12. Polygenic traits

**Short Answer:**

13. During gamete formation, alleles segregate from each other so that each gamete carriers only a single copy of each gene. An example of this the plants Mendel used. Each F1 plant produces two types of gametes—those with the allele for tallness and those with the allele for shortness.

14.

What the Punnett Square should look like:

|  |  |  |
| --- | --- | --- |
|  | B | b |
| b | Bb | bb |
| b | Bb | bb |

The man’s genotype is Bb, while the two children with brown eyes are Bb and the child with blue eyes is bb.

15. There are four main principles the student should have. For each right principle the student will receive points. The answer should be somewhat like this:

- The inheritance of biological characteristics is determined by individual units known as genes. Genes are passed from parents to their offspring.

-In cases in which two or more forms (alleles) of the gene a single trait exist, some forms of the gene may be dominate and others may be recessive.

-In most sexually reproducing organisms, each adult has two copies of each gene—one from each parent. These genes get segregated from each other when gametes are formed.

-The alleles for different genes usually segregate independently of one another.

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