

Test – Lesson 12 – Reproduce - Part 3

1. A dominant gene _____.
 - (A) is more prevalent in the population than its recessive counterpart
 - (B) prevails because the gene product from both genes is needed to manifest the recessive trait
 - (C) enhances the cell in some important way
 - (D) dominates by preventing the recessive gene from making its mRNA
2. Regarding mutations of the sex chromosomes, _____.
 - (A) mutations on the lower part of the X chromosome can be recessive
 - (B) they produce wild-type traits
 - (C) mutations on the upper part of the X chromosome are more often than not dominant
 - (D) they can be dominant or recessive on the Y chromosome
3. A Barr body _____.
 - (A) is an inactivated X chromosome
 - (B) is the inactivated missing portion of the Y chromosome
 - (C) is inactivated during the prophase of mitosis
 - (D) is an inactive polar body
4. The multicolored fur in Calico cats _____.
 - (A) is primarily seen in female Calico cats
 - (B) is due to a reactivated Barr body
 - (C) stems from a trisomy karyotype
 - (D) would not occur if fur color were located on the X chromosome
5. Which of the following statements is not true? A genetic mutation _____.
 - (A) changes that gene's mRNA
 - (B) may or may not change the protein made by that gene
 - (C) changes the tRNA building the protein for that gene
 - (D) may or may not change the function of the protein made by that gene
6. How many boxes does a Punnett square need to analyze two genes?
 - (A) 4
 - (B) 9
 - (C) 16
 - (D) 25
7. How many boxes does a Punnett square need to analyze a hemophiliac family?
 - (A) 4
 - (B) 9
 - (C) 16
 - (D) 25

8. In the AB blood type, A and B genes are _____.

- (A) recessive
- (B) dominant
- (C) codominant
- (D) carbohydrate molecules attached to hemoglobin

9. People with type A blood _____.

- (A) have anti-A antibodies
- (B) have anti-B antibodies
- (C) have anti O antibodies
- (D) have both anti-B and anti-O antibodies

10. The DNA within mitochondria _____.

- (A) is single stranded
- (B) is from the father alone
- (C) is from the mother alone
- (D) is from the mother and father together