

## Chapter 5 Genetics

1. What are the reasons Mendel choose *Pisum sativum* for his experiment?  
(A) Long life cycle  
(B) Easy hybridization  
(C) Bisexual flower  
(D) Well-defined discrete characters
2. Linkage results in  
(A) prevention of recombination  
(B) formation of prenatal phenotype  
(C) determination of dominant/recessive traits  
(D) formation of lesser wild phenotype
3. In an experiment, you culture the anthers and leaves of a flower. You see the plants so generated are  
(A) triploid  
(B) monoploid  
(C) diploid  
(D) tetraploid
4. Mut S recruits which of these following component(s) to the mismatched site?  
(A) Mut L  
(B) Mut T  
(C) Mut H  
(D) Mut D
5. What are the results of pericentric inversion with single crossing over?  
(A) Two normal chromosomes  
(B) one abnormal acentric chromosome  
(C) one dicentric chromosomes  
(D) one acentric chromosome
6. Which of the following are possible cause of lethality of individuals carrying a deletion mutation?  
(A) Genes that are not haplo sufficient doesn't produce adequate gene product  
(B) Genomic imbalance  
(C) Unmasking of lethal recessive alleles  
(D) Lack of diversity
7. Which of the following are example of hexaploid crops?  
(A) Wheat  
(B) Oat  
(C) Sugarcane  
(D) Kiwi fruit

8. If a part of the chromosome was transferred to a non-homologous chromosome say 1 to 1'. Then which of the following are TRUE?  
(A) The pairing in meiosis will be affected  
(B) The chromosome will be torn apart while segregation  
(C) In most of the cases, the resultant gamete will be non-viable  
(D) The pairing will be between 4 homologous chromosomes
9. Which of the following are type of translocation?  
(A) Simple  
(B) Reciprocal  
(C) Tandem  
(D) Intercalary
10. Farmers often practice polyploidy as  
(A) it increased heterozygosity  
(B) it makes the plants more durable  
(C) they take longer time to undergo meiosis  
(D) it causes increment in plant organs

**Answer**

1. (B), (C), (D)  
2. (A), (B), (D)  
3. (B), (C)  
4. (A), (C)  
5. (A), (C), (D)  
6. (A), (B), (C)  
7. (A), (B), (D)  
8. (A), (C), (D)  
9. (A), (B), (D)  
10. (A), (D)