

1. Crossbreeding is:
 - a. joining of gametes.
 - b. a system of mating involving the pairing of animals representing two (or more) genetically dissimilar groups.
 - c. Inbreeding.
2. The aim of crossbreeding is:
 - a. to obtain the heterosis effect and rapidly incorporate desired genetic material.
 - b. to reduce mutations and the heterosis effect.
 - c. to reduce heterosis and genetic diversity.
3. Crossbreeding of non-inbred individuals can be classified as:
 - a. interbreeding, crisscross, or rotational.
 - b. top crossing, incrossbreeding, or incrossing.
 - c. breed improvement, upgrading, or breed creation.
4. Heterosis is manifested as:
 - a. an increase in the overall viability of crossbreds in comparison with the parent forms (hybrid vigour).
 - b. an increase in heterozygosity.
 - c. decreased stability of genetic material.
5. Crossbreeding for breed improvement
 - a. involves only primitive breeds.
 - b. should not be accompanied by rigorous selection.
 - c. involves an 'infusion of blood' from a breed in which the trait for improvement is well-developed.
6. Interbreeding of animals aimed at obtaining the heterosis effect in the first generation of crossbreds is called:
 - a. commercial crossbreeding.
 - b. upgrading.
 - c. breed creation.
7. Rotational crossbreeding is crossbreeding:
 - a. of inbred individuals.
 - b. of non-inbred individuals.
 - c. aimed at adapting foreign genes.
8. A genetic effect of crossbreeding is:
 - a. a reduced reproduction rate.
 - b. heterosis.
 - c. reduced viability in the offspring.
9. Genetic diversity
 - a. refers to the degree of genetic similarity or difference between two breeds.
 - b. is an increase in homozygosity in a population.
 - c. is a factor increasing inbreeding depression.

10. The epistatic effect of genes

- a. is inheritance of independent traits.
- b. is the main effect of heterosis.
- c. involves combinations of genes at one locus interacting with the effects of combinations of genes at other loci.