1) Inbreeding in the population increases the proportion of
a) heterozygotes
b) homozygotes, both dominant and recessive
c) only homozygotes of recessive
d) the frequency of genotypes in the population is not affected

2) The term "autozygous" refers to alleles that are
a) identical by state
b) heterozygous
c) identical by descent
d) chemically identical

3) The concept of relationship is based on
a) alleles identical by descent
b) alleles identical by condition
c) phenotypic similarity of individuals
d) on blood lineage

4) The coefficient of relationship between two individuals may be greater than one
a) for all types of relationship coefficients
b) for the coefficient of relationship according to Wright (1922)
c) This is not true for the coefficientint derived from the additive relationship matrix
d) for a relatedness coefficient derived from an additive relationship matrix

5) The coancestry (kinship) coefficient between two individuals corresponds to
a) the inbreeding coefficient of the offspring of the two individuals
b) twice the coefficient of inbreeding of the offspring of the two individuals
c) the diagonal element of the additive relationship matrix
d) the number of generations to the common ancestor

6) In the additive relationship matrix, the inbreeding coefficients
a) are located on the off-diagonal elements of the matrix
b) are not present at all
c) found on the diagonal elements of the matrix
d) found only in the upper right-hand corner

7) Definition of alleles identical by state (IBS)
a) means that the alleles are derived from a common ancestor
b) means that they are a heterozygous assembly
c) means that the alleles are chemically identical but do not come from a common ancestor
d) the allele is found only in clones

8) Determining whether the alleles are identical by descent (IBD)
a) is possible by simply looking at the type of allele (dominant vs. recessive)
b) can only be determined by pedigree records
c) can only be determined by molecular genetic information
d) can be determined by both pedigree records and molecular genetic information

9) high values of inbreeding coefficient
a) are always advantageous to breeders and breeders deliberately create them by type of breeding
b) are undesirable for breeders because they can cause inbreeding depression

c) they are of no interest to the breeder because they cannot affect the performance or fitness of the individual
d) indicate a successful breeding programme

10) Checking the level of inbreeding coefficient in the population
a) is a useless activity, the inbreeding coefficient does not affect the level of genetic diversity of the population
b) it is an essential characteristic used in conservation genetics and production breeding programmes
c) is not used at all in conservation genetics
d) is used to describe quantitative traits of a given population