

Biology - 12th Class Biology Chapter 24 Short Questions Preparation

Q1. Give the concept of fixed alleles.

Ans 1: If the members of a population are homozygous for the same allele, that allele is said to be fixed in the gene pool.

Q2. Name any four factors affecting gene frequency.

Ans 1: Following are the factors which cause change in gene frequency

Ans 2: i Genetic drift.

ii Migration

iii Selection

iv Random mating

Q3. Define theory of special creation.

Ans 1: According to this theory all living things came into existence in their present form especially and specifically created by nature.

Q4. Differentiate between convergent and divergent evolution.

Ans 1: Evolutionary processes that leads to the formation of homologous structures is called convergent evolution.

Ans 2: Evolutionary processes which leads to the formation of analogous structures in organisms is called divergent evolution.

Q5. Define hybridization.

Ans 1: It is a process in which two organisms having different genotypes are crossed together to produce a new organism which show the characters of both the parents.

Q6. What is Neo-Darwinism?

Ans 1: Darwin's theory has been modified from ideas of many different fields including paleontology, taxonomy, biogeography and population genetics is called Neo-Darwinism.

Q7. What is endosymbiont hypothesis?

Ans 1: Hypothesis which explains the origin of organelles by symbiotic association is called endosymbiont hypothesis.

Q8. Differentiate between homologous and analogous organs. Or Define analogous organs.

Ans 1: Homologous Organs: Organs which have similar anatomical structure but perform different functions are called homologous organs.

For Example: Arm of man, front leg of horse, wing of bat and bird are homologous organs.

Ans 2: Analogous Organs: Organs which have different structures but perform same functions are called analogous organs. e.g. wings of bat, birds & insects.

Q9. Differentiate between population and gene pool.

Ans 1: Population: Member of same species living in an area at the same time at same place is called population.

Ans 2: Gene pool: Total aggregate of genes present in a population at any one time is called gene pool.

Q10. Explain the term homology with a suitable example.

Ans 1: Similarity in structure due to common ancestral origin is called homology. Homologous organs are best example of homology like flipper of whale, front leg of horse, arm of man, wing of bird.
