

Vidya Bhawan Balika Vidyapeeth Lakhisarai

Arun Kumar Gupta

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1. A Mendelian experiment consisted of breeding tall pea plants bearing violet flowers with short pea plants bearing white flowers. The progeny all bore violet flowers, but almost half of them were short. This suggests that the genetic make-up of the tall parent can be depicted as

- (a) TTWW
- (b) TTww
- (c) TtWW
- (d) TtWw

Correct answer – (c)

TtWW might be the genetic makeup of the tall parent. Since half the progenies are short, this implies that the parent plant also will have a collection of short genes; all progenies bore violet flowers, which suggests that violet color is dominant over white.

2. An example of homologous organs is

- (a) Our arm and a dog's fore-leg.
- (b) Our teeth and an elephant's tusks.
- (c) Potato and runners of grass.
- (d) All of the above.

Correct answer – (d)

Homologous organs have the same origin as each of the above organs, but different functions. Homologous organs can be defined as the organs of various animals having similar basic structure but different functions. For example, a whale's flippers, a frog's forelimbs, and man have the same basic structures but perform different functions, which is why they are called homologous organs.

3. In evolutionary terms, we have more in common with (a) A Chinese school-boy.

- (b) A chimpanzee.
- (c) A spider.
- (d) A bacterium.

Correct answer – (b)

Humans and chimpanzees are connected since they belong to the identical order, Primates and same family, Hominidae. However, a school going boy is himself a person that belongs to homo. This suggests that the characteristics of a college are specifically a dead ringer for people at large.

Hence, in organic process terms, we have a tendency to be specifically almost like a college boy than to a Pan troglodytes.

4. A study found that children with light-colored eyes are likely to have parents with light-colored eyes. On this basis, can we say anything about whether the light eye color trait is dominant or recessive? Why or why not?

For considering an attribute as dominant or recessive, we'd like knowledge of a minimum of 3 generations. This knowledge is regarding solely 2 generations. The fogeys may be homozygous for the attribute resulting in presence of same trait in youngsters. This doesn't support that the given attribute is dominant.

5. How are the areas of study – evolution and classification – interlinked?

Classification and evolution are extremely interlinked fields of study. Classification is influenced by evolution. The fashionable system of classification is additionally known as biological process classification; which implies it's supported biological process relationships. Hence, evolution and classification are closely connected.